

THE ACCESSIBILITY AND SUBSEQUENT INFLUENCE OF SOCIAL CAPITAL  
ON ACADEMIC ACHIEVEMENT IN CHILDREN IDENTIFIED  
AS AT-RISK AND/OR CONFIRMED VICTIMS OF  
MALTREATMENT IN THE UNITED STATES

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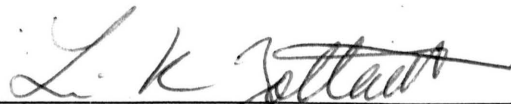
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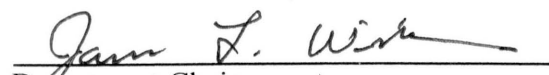

To the Dean of the Graduate School:

I am submitting a thesis written by Merryl Barker entitled "The Accessibility and Subsequent Influence of Social Capital on Academic Achievement in Children Identified as At-Risk and/or Confirmed Victims of Maltreatment in the United States." I have examined this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Arts with a major in Sociology.



Dr. Lisa K. Zottarelli, Major Professor

We have read this thesis and recommend its acceptance:

  
  
Department Chair

Accepted:



Dean of the Graduate School



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## ABSTRACT

MERRYL BARKER

### THE ACCESSIBILITY AND SUBSEQUENT INFLUENCE OF SOCIAL CAPITAL ON ACADEMIC ACHIEVEMENT IN CHILDREN IDENTIFIED AS AT-RISK AND/OR CONFIRMED VICTIMS OF MALTREATMENT IN THE UNITED STATES

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With over 700,000 children involved with the child welfare system each year, our society must address the issues that result in their maltreatment and invest in preventative and supportive measures for this population. Much of the research focuses on the most severe cases in which children are placed in foster care, rather than those remaining in the care of custodial parent(s). Using the theoretical idea of social capital, especially as pioneered by James Coleman, the effect of social capital on potential academic achievement was evaluated on young adolescents identified as at-risk for maltreatment. Also considered were the effects of risk severity as indicators of potential academic achievement. Data was collected as part of a longitudinal research project conducted by the National Data Archive on Child Abuse and Neglect. Unfortunately, no conclusive support was found connecting social capital to reading scores, but differences among sample populations were discovered and discussed.

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## CHAPTER I

### INTRODUCTION

In 2009, Child Protective Services (CPS) identified approximately 702,000 children nationally as confirmed victims of child abuse or neglect during that year (Child Welfare Information Gateway 2011). These incidents resulted in either CPS removing the children from the care of the perpetrators or the establishment of open cases involving the surveillance of caregivers. The latter often required a service plan contract to prevent further incidents. When CPS expectations go unmet and/or the abuse or neglect continues, children may be removed from the care of their parent(s) and placed in state custody at an emergency shelter, group home, foster home, treatment center, or with another family member or trusted adult.

Irrefutably, one of the most prevalent and detrimental social problems facing the United States today involves the nearly 500,000 children in the conservatorship of the child welfare system. Not only do these children become the responsibility of state and local agencies to meet basic needs, but they tend to be highly vulnerable to additional social ills such as poverty, discrimination, poor schooling, crime and the criminal justice system, violence, inadequate healthcare, unemployment, and a general lack of resources (Avery and Freundlich 2009; Courtney and Dworsky 2006; Pecora et al. 2006). However, this social vulnerability is not reserved for only those actually removed from the home,

but also pertains to victims of maltreatment that remain in the care of custodial parent(s) (Bruyere 2010; Crozier and Barth 2005; Fischer and Kmec 2004; Jorgensen 2005; Kim and Tajima 2009; Korbin 2003; Reich 2010; Reynolds and Robertson 2003). As a society, we should consider the predictors of abuse and neglect and build on any available resources to promote the maintenance of a supportive environment in which our children can thrive.

James Coleman pioneered research connecting the transfer of human capital from parent(s) to child, through such means as parental education, educational aspirations for children, and general foundation of academic priority in the home via strong relationships he labeled social capital (Coleman 1988). He suggested that the presence of this social capital directly affects educational outcomes such as dropout rates and standardized test scores.

Drawing from a sample of children identified as maltreated and/or at-risk for maltreatment, the current study will measure accessibility of social capital. Separate indicators of social capital will then be measured against the sample population's reading subset scores on the Wide Range Achievement Test 3 (WRAT3) which will serve as an indicator of academic achievement. The analysis will be used in determining if in the United States, the accessibility of social capital has a positive correlation with academic achievement in children identified as at-risk and/or confirmed victims of maltreatment.

## SIGNIFICANCE OF THE STUDY

Educators and educational administrators, parents, child welfare, and even the general welfare system and governmental unemployment services share a vested interest in the academic success of children. The impact of such ultimate academic outcomes as high school graduation rates is significant on both a micro and macro level. In 2007, the rate of unemployment for high school dropouts was 26.9%, compared to approximately 20% for high school graduates and 10% for graduates enrolled in college (U.S. Bureau of Labor Statistics 2008).

Numerous studies have focused on academic outcomes for foster children. However, there is minimal research seeking to examine the academic outcomes of maltreated and at-risk children remaining in the home. Should a significant relationship between social capital and academic achievement be confirmed in this specific population, there will be numerous implications. From a social structural level to the role of the adult caregiver, strategic, proactive intervention should be developed to ensure that children with a history of abuse and neglect have clear pathways to gaining needed social capital and steps to prevention are established for those identified as at-risk for abuse or neglect. Furthermore, this thesis will extend the work to consider the academic achievement and educational experiences of children maltreated or at-risk of being maltreated, yet remaining in the home.



## THE RESEARCH PROBLEM

This purpose of this study is to consider if the accessibility of social capital has a positive correlation with academic achievement in children identified as at-risk and/or confirmed victims of maltreatment. The study will seek to determine whether social capital in this particular population, measured by parental involvement, communication, expectations for education, personal education level, and potential community support has a significant influence on academic achievement, measured by scores on a reading proficiency test. If a lack of these indicators of social capital are in fact linked to poor reading potential, implications can be made for the risk of additional educational struggles and outcomes. Simultaneously, it may also present the need for programs to help children build this needed social capital, improving academic outcomes.

## CHAPTER OUTLINE

Chapter II will review the research literature pertaining to outcomes for both foster children and those identified as maltreated or at-risk of being maltreated. Research explored will specifically focus on educational experiences and the factors contributing to academic success. The various forms of social capital and its effects on children will be included in this research review. An extensive consideration of previous findings in these areas will offer direction and background to the present analysis.

Chapter III will review the various perspectives on social capital, offering insight into its development. The interpretations provided by Bourdieu, Coleman, and Portes will be explored. Particular attention will be given to Coleman's perspective since it was used

most extensively in educational research. The chapter will include the specific use of the theory as a guide for the current study.

Chapter IV will detail the data to be analyzed and the specific methods that will be utilized. Included will be the process of data retrieval and sources, highlighting the unique sample populations from each region. Choices of variables, including dependent, independent, control, and dummy variables will be explained. The construction and rationale of seven indices used as independent variables measuring social capital will be covered. Finally, the hypotheses of the thesis will be introduced along with the limitations of the study.

Chapter V will discuss the results of the analysis. An explanation of specific tests run and the effects on the variables will be addressed. Statistical data found significant, both proving and disproving the hypotheses, will be detailed.

Chapter VI will conclude the thesis, drawing out conclusions from the analysis. Major findings will be explored, considering causation and relevance to the research literature. Finally, recommendations for further study will be presented.

## SUMMARY

In conclusion, this chapter offered an introduction to the topic to be covered in this thesis. The significance of the study provided a rationale for conducting the research. Stating the research problem highlighted the issues at hand for this particular sample and specific obstacles to be addressed. Finally, an overview of the content covered in each chapter was provided.

## CHAPTER II

### LITERATURE REVIEW

Labeling a child as at-risk for maltreatment could mean a range of severity from familial and demographic factors indicating risk to out-of-home placement by the state. Much of the literature focuses on the most severe cases with significant child welfare involvement, mainly those involved with the foster care system. However, there is much less research considering the effects of significant maltreatment risk for families not necessarily involved with Child Protective Services (CPS).

The present study will focus primarily on children remaining in custodial family custody, but identified as at-risk for abuse and neglect. The sample population is vulnerable to entering the foster care system and, thus, experiencing many of the educational obstacles identified for foster youth. For both this reason and due to the limited research on at-risk children remaining in the home, a review of outcomes for both populations will be utilized.

This chapter will look into the background of maltreated children, the detrimental effects of abuse and neglect, and the predictable outcomes from this population. Research on both the most extreme cases (those requiring out-of-home care) and those identified at-risk due to more demographic factors will be explored. A special emphasis will be placed on the educational experiences and outcomes for this population.

## BACKGROUND OF MALTREATED CHILDREN

Involvement with the foster care system indicates removal from the home and care of biological parents or legal guardians and placement into the care of another relative, a group home, residential treatment center, or a traditional foster home with non-relatives. In order to remove a child from the custody of original caregivers, the state must provide sound evidence that the child has been the victim of some sort of maltreatment. According to the United States Department of Health and Human Services' 2009 data, 78.3% of reported cases include some form of neglect, 17.8% physical abuse, 9.5% sexual abuse, 7.6% medical neglect, and 9.6% other (i.e. abandonment, threats, congenital drug addiction) (U.S. Department of Health and Human Services 2010).

Domestic instability increases the likelihood that foster children have experienced multiple housing moves with their family of origin. Unfortunately, child welfare workers often face difficulties establishing a lasting placement within the foster care system, resulting in the child continuing to lack permanency (Zetlin and Weinberg 2004; Cameron 2007). The ramifications of familial and placement disruption, combined with a history of maltreatment are complex and must be considered in order to efficaciously meet the psycho-social needs of the child (Cameron 2007; English et al. 2005).

With few foster or group homes available, child welfare departments face the challenge of ensuring the safety of all children while prioritizing those at greatest risk for the limited non-familial placements. The courts transfer conservatorship to the state for the children who have endured significant physical, emotional and/or sexual abuse;

neglect; and/or are currently living in highly dangerous situations (Bruskas 2008).

Children typically enter state care confused, anxious, insecure, and traumatized.

The American Academy of Pediatrics reports that foster children suffer from birth defects, developmental delays, and physical disabilities at a greater rate than their non-foster peers (McCarthy and Woolverton 2005). They may also endure physical injuries, malnutrition, poor hygiene, mental health and/or behavioral issues. Due to the often transient nature of the original family and/or the experience of neglect, many foster children are considerably behind academically and may have little, if any, history of medical visits (McCarthy and Woolverton 2005). Research consistently reveals that early exposure to abuse, neglect and/or violence is related to an increased rate of mental illness, stress, difficulties adjusting, trouble relating to others in adulthood, and poor adult health outcomes (Bruskas 2008; Djeddah et al. 2000; Felitti 2002; Kools et al. 2009; Moreau et al. 2009). In fact, many foster children (Dowdell 2009 found 67%) experience some degree of Post-Traumatic Stress Disorder (PTSD) which could have lasting effects throughout the lifespan. Foster children deal with disappointment and loss, often resulting in a long-term grieving process and, consequently, higher rates of stress.

Foster youth, especially those placed in more institutional settings like group homes, deal with an imposed upon deviance, growing up without a traditional home life and without their parents. Although their foster status is confidential, multiple caseworkers, the absence of family at school events, transportation with other children in a fifteen-passenger van, and the inability to visit a classmate's home without criminal

background checks and home visits, make foster children easy targets for stigmatizing. The stigma experienced may originate from peers, teachers, doctors, coaches, etc., but may also emerge internally. W.E.B. DuBois' idea of 'double consciousness' illustrates the way foster children potentially see themselves through the lens of others' perceptions. In a society where the acceptable norm consists of the (at least apparently) happy, two-parent, middle-class household, foster children can feel insignificant, insecure and inconsequential compared to their peers. They continually live with the awareness of the rejection and abuse endured at the hands of their own parents.

In addition, foster children may be dealing with other stigmas such as mental illness, learning disabilities, developmental delays, low socioeconomic status, and minority race and ethnicity. The effects of labeling and stigmatizing can further alienate the foster child from much needed social connections, thus, perpetuating the cycle of rejection and abuse leading to adverse mental and physical health outcomes. Kools et al. (2009) found that foster youth often attempt to overcome stigma by creating "a facade of healthy functioning and pseudo-independence to protect themselves from further devaluation by others and the uncertainty of foster care" (p. 230). The repercussions of stigma do not disappear in this self-created illusion and could manifest through physical and mental illness or behavioral issues. The degree in which the child builds and protects his/her facade could have a substantial effect on therapeutic success. If the issues of early abuse, shame and neglect are not addressed, they will likely have detrimental consequences on the emerging adult facing the stressors of independent living.

## MALTREATED CHILDREN REMAINING IN THE HOME

Crozier and Barth (2005) asserted that the research needs to focus more attention on outcomes related to maltreated children who remain in the home. In her observations of children during Child Protective Services (CPS) home visitations, Reich (2010) noted a general distrust of the system. Children tended to defend parents by either responding to caseworker inquiries or even offering unsolicited insight defending the parents' ability to provide adequate care. Many children observed in the study went to great lengths to 'manage' the situation and prevent family disruption. They may not only deny any abuse or neglect, but actually attempt to absorb the blame for the circumstances as well.

Thus, the abuse and/or neglect continued, placing the child in perpetual risk, affecting all aspects of life. For example, on-going experiences of child abuse and neglect increase the likelihood of adolescent runaways. Running away, in turn, increases the risk for further victimization and detrimental behavior such as physical or sexual assault, drug/alcohol abuse, and dropping out of school (Kim and Tajima 2009).

The research literature points to the importance of considering community and neighborhood factors impacting families in which child maltreatment or risk for child maltreatment has been identified (Bruyere 2010; Korbin 2003; Jorgensen 2005; Reich 2010; Tyler, Johnson, and Brownridge 2007). Korbin (2003) stressed contextual factors, such as the effects of community, on child abuse and neglect, especially since perpetrators may hold negative opinions of their neighborhoods/communities, and, thus, may consider themselves as less socially attached. Strong communities can provide links

to necessary social capital, including positive resources promoting healthy youth development directly affecting school performance (Bruyere 2010). Social and community factors must be considered in relation to the provision of social capital for at risk youth (Jorgensen 2005).

Communities and families marred by social ills like poverty, racism, violence, and abuse typically result in children's lack of trust in adults, poor educational outcomes, and participation in risky behavior (Bruyere 2010). Fischer and Kmec (2004) explored the effects of neighborhood conditions (particularly socioeconomic status) on the ability of families to effectively impart resources that promote increased school completion to their children. Family resources were found to be most productive in high socioeconomic areas, yet had little influence in low socioeconomic neighborhoods. One potential factor is that parents in lower socioeconomic communities are more likely to spend time in surveillance and protection of their children, rather than in actual involvement. In addition to parental level of education and family risk status, neighborhood poverty has been identified as a strong predictor of child maltreatment (Reynolds and Robertson 2003).

## FACTORS RELATED TO EDUCATIONAL SUCCESS

Multiple external factors contribute to the academic success of children. It is generally accepted through consistent research outcomes that solely connecting innate intelligence to achievement is an exorbitant oversimplification. Using standardized reading scores as a dependent variable to measure academic adeptness, Shin (2003) found



that measures such as emotional attachment with others, life satisfaction, participation in extracurricular activities, academic ambition, effective problem-solving skills, and favorable school experiences were all positively correlated to reading scores. Conversely, factors such as increased levels of depression, drug use, and loss of control were negatively correlated with reading ability percentages.

In her interviews with youth one year out of the child welfare system in the United Kingdom, Cameron (2007) created a two-faceted measure of self-reliance, assessed by both motivation and initiative taking. She examined the amount of self-reliance in the context of minimal external reinforcement and/or encouragement. Rather than attributing difficulties pursuing higher education to these challenges, she found that former foster youth focus on their own ability to negotiate these obstacles and pursue any available resources that might lead to educational aspirations. Cameron does extract common impediments in the pursuit of further education including lack of financial resources, the perception that college officials were not affirming of their pursuit of educational goals and unique circumstances, and a general lack of scholastic preparation.

Foster homes and homes in which abuse and neglect occur often become disrupted for various reasons. Children may actually be reunified with parents only to face another removal if abuse or neglect resumes. Similarly, families marred by maltreatment tend to be unstable and often characterized by frequent residential mobility.

Consequences of multiple and sudden moves include the disturbance of educational settings and progress. Blome (1997) found that when compared to children

living with biological parents, “more than twice as many foster youth had changed schools three times or more since the fifth grade” (p. 48). Due to the logistics and practicalities of moving and even legal issues facing the family of origin, it is common that foster children, especially, have experienced extended and perhaps multiple periods of time in which they are not enrolled in school at all (Zetlin, Weinberg, and Shea 2006). Parental criminal activity, poverty, children’s behavior issues, and attempts to flee Child Protective Services contribute to a high level of residential mobility for children even prior to entering state care. Hartman (2006) states that “unplanned and excessive [student] mobility is detrimental to the education enterprise.”

A myriad of challenges arise from these transfers. Often children leave so abruptly they are not officially checked out of their schools and, consequently, the new schools lack the educational records critical for academic continuity (Zetlin et al. 2006). Compiling frequent and sudden moves increases the propensity for lost and/or inaccurate documentation, resulting in incomplete student files. Thus, many foster children struggle to achieve academic expectations, show increased absenteeism and discipline referrals, and face graduation delays (Parrish 2001; Zetlin et al. 2006). In fact, Parrish (2001) found 75% of foster children in her sample performing below grade level and 50% retained at least one time.

A lack of longevity and established relationships within the school system can result in missed opportunities for maltreated children. Research indicates that the education system assumes maltreated children’s school performance to be akin to those

of their non-maltreated peers, which may place unrealistic expectations on a population dealing with significant stress, instability, and loss (Bruce et al. 2010). Other reports indicate negative effects of significant differential treatment. During a focus group of middle school aged foster children, Altshuler (2003) found that foster students felt uncomfortable with both perceived negative stereotypes and special treatment from teachers based on their foster placement. They indicated a desire for teachers to be aware of their unique situation and potential needs, but to avoid treatment differing from that of other students.

These issues have also been noted with maltreated students remaining in the custody of parent(s). Substantial evidence points to the possibility that teachers could be influenced to varying degrees by status related biases (Alexander, Entwisle, and Thompson 1987). A high social distance between teacher and student can result in lowered expectations and negative perceptions. Crozier and Barth (2005) found that high risk families experienced lower teacher involvement and suggested that social work intervention be established to more adequately reach out to these families.

Matched with a group of students not residing in foster care, Blome (1997) found that foster youth in high school were significantly less likely, even with similar grades, to be enrolled in courses designed for college preparation. Two years following high school, 29% of non-foster youth in the study were attending college, compared to only 13% (less than half) of the former foster youth. Foster youth indicate a lack of relationships with

those promoting further education and few connections to necessary resources (Cameron 2007).

## FAMILIAL CONNECTION TO ACADEMIC SUCCESS

Links between home and school in academic ability or achievement remained largely absent in the research literature until the late 1970s. Society detached the areas of familial and educational institutions and research seemed to follow suit (Ryan and Adams 1995). However, as the avant-garde research began to reveal undeniable connections between the two domains, the bidirectional effects of family and school life became permanent themes throughout educational, sociological, and child development research.

Ryan and Adams (1995) reviewed the potential effects of various parenting styles and familial characteristics on academic achievement. Their review of the research literature indicated that parental investment in education through homework assistance and monitoring, continual advocacy for school involvement and attention to studies, provision of exposure to cultural and educational opportunities outside of school, regular communication regarding school, and directed attendance tend to relate positively to student academic achievement. Conversely, familial characteristics including the presence of conflict, lack of cohesion, insufficient nurturing, and general parenting skills, decreased cultivation towards academic accomplishment or exposure to intellectual and cultural activities and appeared to be negatively correlated to scholastic achievement.

Throughout the 1980s, research on the effects of family/school connections began to shift from an individual child focus to placing the child within a larger system. Amatea

and Sherrard (1995) point to the use of theoretical approaches looking at the quest for equilibrium among various social systems. Researchers began to examine the socialization of families, considering the child and family in the broader social context. Looking at the various layers of influential societal systems, researchers checked for defective layers within the embedded structure. This trend in the literature complements the work of James Coleman in linking social capital to educational outcomes (to be discussed in greater depth).

In her review of research, Scott-Jones (1995) found that parental promotion of academic and cognitive socialization is more often and decisively linked to academic success than are status variables such as socio-economic status and even parental formal education. Themes in the literature point to more significant factors including parental responsiveness, peer relations, school policies and practices, parental educational valuation, socio-historical conditions (including employment opportunities and residential segregation), non-normative life events, and social network disruption. Again, the child and family are placed in the larger societal context when Scott-Jones considers external factors such as the effect of the particular neighborhood on parental involvement and student success. Overall, Scott-Jones' analysis of the research suggests that differences in family interactions are of greater importance than specific demographics. However, even these family dynamics should be considered within the larger social context in order to adequately link all potential influences on the ultimate academic success of the child.

Connecting these general tenets of student success to the unique situation faced by maltreated children, research indicates that the involvement of foster parents in the educational process increases the propensity to academic success (Altshuler 2003). Teachers reported increased success of students living with foster parents who treated the child as their own, maintaining close involvement with the teacher and other school staff members regarding the child's progress. Unfortunately, overall, there tends to be little if any foster parent or child welfare caseworker involvement, including attending parent/teacher conferences, tracking homework, and general communication with school officials. Researchers promote intentional training regarding educational laws, policies, and needed home support (Altshuler 2003; Fram and Altshuler 2009).

#### U.S. PUBLIC SCHOOL SETTING AND MALTREATED CHILDREN

Upon initial arrival at public school throughout the United States, children are introduced to a range of materials, trained professionals, educational philosophies, peer relations, and opportunities that will largely influence their academic success. Unfortunately, the quantity and quality of these resources differ based on the location of the school and other community influences. Moreover, within a single campus factors like tracking, unfamiliarity of student backgrounds, and a lack of awareness of the population's unique needs contribute to limited access to these resources for some students. Opportunities to receive the best possible education may be unequal across the student body, especially to the most vulnerable members of the population (Gamoran 1992; Hallinan 1994; Stone, D'Andrade and Austin 2007; Weinberg, Zetlin and Shea

2009). Maltreated children historically fall into this at-risk category, with aforementioned multiple placement changes involving school transfers, emotional and behavioral issues, learning disabilities, and interrupted education resulting in lagging grade level expectations (Fram and Altshuler 2009; Stone, et al. 2007; Weinberg, et al. 2009).

In the case of foster children specifically, studies reveal often limited or non-existent communication and collaboration between child welfare agencies, foster parents and school administration, although there is some effort to promote interconnectedness (Stone et al. 2007; Vacca 2007; Weinberg et al. 2009). Altshuler (2003) discovered a sense of distrust between school and social service representatives, impeding foster children's connections to critical amenities. Protective, legally sanctioned confidentiality, regarding the details of the foster child's background limit teacher and administrative access to potentially helpful information (Altshuler 2003; Zetlin et al. 2006). These factors often result in foster children not consistently receiving the educational resources needed to regain time lost in frequent moves both prior and during involvement with the child welfare system.

Additional social problems plague foster children within the educational system. Since there is an overrepresentation of minorities and children from low socioeconomic backgrounds in the child welfare system, foster children likely enter state care already behind their peers and lacking the social capital needed to promote education as a priority (Fram and Altshuler 2009; Haghighat 2005). Foster and other at-risk children are likely to be placed into tracking or ability groups that rigidly decide their educational fate, rather

than considering their turbulent history and actual academic potential, or allowing time to build or rebuild cultural, social and human capital. Zetlin et al. (2006) found that foster children tend to be over or under identified for special education services. School representatives report that foster children seemed to be frequently prescribed psychotropic medications, resulting in observable difficulties concentrating on instruction, as well as other side effects. During interviews, foster children have indicated labeling and special treatment from teachers that occasionally creates emotional discomfort (Altshuler 2003; Fram and Altshuler 2009). There is some evidence of school administrators avoiding the enrollment of foster children due to the fear that delayed academic progress will affect their standardized test scores and, thus, reflect poorly on overall school ratings (Zetlin et al. 2006).

Research shows that multiple moves from campus to campus have significant academic, psychological, social and emotional effects on children (Hartman 2006). Consequently, maltreated children tend to be behind academically upon entering care. Coleman (1988) found that increased school mobility tended to mean increased drop-out rates. Schools need to be committed to the unique needs of children from these unstable backgrounds including establishing positive, key relationships, providing necessary services, and ensuring ample opportunities to bring the child back up to grade level as soon as possible.

As mentioned previously, children remaining in the home deemed at-risk for or with substantiated reports of abuse and neglect are found to experience higher than



average residential mobility. In fact, research shows that they move more often and experience twice as many moves per year on average than non-maltreated children (Eckenrode et al. 1995). Secondary effects of these moves include increased social isolation, academic discontinuity, and changes in the affective states of family members (Eckenrode et al. 1995). Changing schools during the elementary years has been related to lower teacher assessed academic performance reviews and decreased school participation (Gruman et al. 2008). School mobility is also positively correlated with child abuse and neglect (Reynolds and Robertson 2003).

Consequently, the number of times a child has moved within a given period of time (interrupting the process of building positive relationships) is frequently used in the literature to determine potential social capital sourced from the neighborhood or community (Reynolds and Robertson 2003). For children remaining in the home, access to social capital may be more challenging, especially in areas of lower socioeconomic status, which lack resources. Bridges of association must be created in order to facilitate access to this much needed capital (Jorgensen 2005).

Maltreated children share educational risk factors with other at-risk children, yet possess additional struggles due to experiences of abuse and neglect (Fram and Altshuler 2009). Risk factors include behavioral problems, emotional disturbance, learning disabilities, high rates of tardiness and absenteeism, low levels of school involvement, weaker cognitive abilities, poor academic performance, lack of classroom comfort and achievement, higher levels of grade retention, placement below grade level, and

excessive school changes (Fram and Altshuler 2009). In addition, these children often lack the adult support necessary to help encourage academic motivation and achievement outside of school. Foster youth interviewed in Altshuler (2003) revealed that they often evade meaningful interactions, including expression of feelings, with their foster families. Instead, unresolved feelings of anger, frustration, hurt, and loss are often released in the school setting as they face increased irritation and aggravation regarding academic delay and lack of consistent, positive relationships. Increased mobility hinders school involvement and building lasting, supportive relationships with peers (Blome 1997; Zetlin et al. 2006).

Additional educational time may be lost due to the susceptibility to illness and other health issues for maltreated children. Research indicates that older foster children suffer from chronic health conditions including asthma, allergies, heart conditions and diabetes to a greater degree than their non-foster peers (Farraggia and Sorkin 2009).

“Children who are currently in the foster care system represent a vulnerable population who tend to have more serious and complex physical, mental, developmental, and behavioral issues than the general pediatric populations” (Dowdell et al. 2009:173).

Distressing experiences early in life often affect not only physical health outcomes, but cognitive, emotional and behavioral development, as well (Avery 2009).

Since many maltreated children experience Post-Traumatic Stress Disorder (PTSD), they begin school emotionally and developmentally behind their peers and continue to fall behind during the transition from adolescence to young adulthood. They

tend to have significantly less social and health capital (access to quality health care, nutrition, and preventative measures that ensure the health and wellness of the child) than their peers. Wadsworth (1996) suggested that the amount of health capital remains somewhat fixed throughout the lifespan, creating a continual disparity.

Other challenges possibly impeding the educational process for maltreated children include a lack of access to past school records, immunization records, and abrupt removal from school without official withdrawal paperwork. Students may be receiving no credit for assignments and consequently earning poor marks on their records at schools they no longer attend (without the school's knowledge of the student's move). Some schools will not allow students to register without immunization records. Since these may not be available at the time of removal, a child may be forced to receive all immunizations again, delaying entrance into school. Due to multiple moves and a lack of information, few records may be available and little may be known regarding the child's school background. Maltreated children may leave a school so abruptly and/or are only enrolled a short time, not allowing adequate time for school officials to update records (Stone, D'Andrade, and Austin 2007).

The literature indicates that as few as 30-60% of foster children leaving care at age 18 earn a high school diploma or G.E.D (Vacca 2007). In a matched cohort, longitudinal study, Blome (1997) found that 37% of foster children compared to just 16% of non-foster children, dropped out of high school before graduating. Only 15% of the foster youth in the study were enrolled in college preparatory classes, compared to 32%

of the matched group, yet students from both groups shared comparable grades and test scores. The author alludes to the presence of some sort of educational discrimination towards foster children based on these comparisons.

The familial backgrounds of maltreated children typically do not support academic attainment or success. Birth parents are likely not involved (or minimally involved at best) in communication with educators, educational planning, and establishing a home environment that reinforces academic growth. Likewise, foster parents are all too often inadequately trained on how to interact with schools, support children academically, and effectively advocate for necessary educational resources. Foster parents typically receive little or no accountability to monitor homework or children's academic progress (Blome 1997; Zetlin et al. 2006). Foster children involved in Blome's (1997) study reported that foster parents rarely check their homework and 65% stated that they had never had a parent or guardian attend a parent/teacher conference. For preschool aged foster children, there appears to be a lack of policy regarding enrollment in head start programs or preschool altogether.

## NEEDS, RECOMMENDATIONS, AND PROGRESS

Though flooded with issues and tremendous needs to be addressed, there has been much progress towards increasing the effectiveness of serving maltreated children, particularly in the past 15 to 20 years. Federally funded research, resulting legislation, and allocation of funds for foster youth, especially, means an increase in pragmatic approaches and evidence of beneficial efforts. Recent literature themes include

innovative progress promoting youth involvement in case planning, interagency collaboration, increased communication with foster parents initiated by the school, and promoting teacher-student relationships. Agencies and governmental organizations appear to be placing increased attention on preventative measures for at-risk families and providing services and resources promoting familial stabilization. Intervention programs designed to alleviate and/or prevent the detrimental effects of low parental involvement have demonstrated positive academic success results (Oyserman 2007). In fact, early childhood intervention in at-risk families has been linked to lower rates of child abuse and/or neglect even years following participation in the program. The most effective programs include intensive, intentional goals and home visits.

The importance of interagency collaboration consistently appears throughout the literature. Historically, communication among the various entities involved with maltreated children appeared haphazard and reactive, if present at all. However, the effective interactions and mutual cooperation of these agencies are critical to the academic success of maltreated children, particularly those in the foster care system (Fram and Altshuler 2009; Weinberg et al. 2009). Weinberg et al. (2009) recommend that representatives from child welfare take the lead in initiating effective collaboration, and Bruce et al. (2010) suggest that they prioritize the maintenance and currency of educational records. Researchers promote proactive planning the first day of placement, including definite educational goals and the involvement of teachers and additional school representatives in treatment teams and fostering ongoing assessment and planning

for the child (Altshuler 2003; Zetlin et al. 2006). Blome (1997) suggested that interagency planning teams include well-planned strategies for each foster child to remain in school until graduation.

Studies support the active involvement of school educational liaisons or social workers to advocate for the unique needs of foster children (Bruce et al. 2010, Zetlin and Weinberg 2004; Zetlin et al. 2006). Helping teachers and school administrators understand these needs and how best to address them in the educational setting only serves to enhance strong relationships and academic achievement for the foster child (Fram and Altshuler 2009). The liaison owns the academic advocacy for the child, but must have the strong support of the other key players from various agencies. Regular, effective communication is critical in order to ensure that all adults involved in the life of the foster child are well informed and are sharing experiences of the child in various settings. Furthermore, professionals and caregivers involved with the foster youth must prioritize education, creating opportunities and exposure to information and resources that will improve the educational experience for the child.

Teachers present a potentially underutilized and easily accessible resource for maltreated children. The literature advocates for a more intentional relationship between the teacher and at-risk child, including taking on the role of educational mentor and providing increased support through such benefits as tutoring (Altshuler 2003; Fram and Altshuler 2009). Fram and Altshuler also recommended that teachers receive education and resources regarding the unique circumstances and potential issues facing foster

children in particular and the most effective means to address the consequences of these issues as they arrive in the school setting (Altshuler 2003). Teachers need a firm understanding of the confidentiality and sensitivity surrounding the foster child's situation, and that they may not always be privy to the circumstantial specifics. However, they can play a vital role in prevention interventions as caseworkers mobilize teachers to promote resilience and educational self-efficacy in the lives of foster students (Bruce et al. 2010; Zetlin and Weinberg 2004).

Several studies promote the school's initiative outreach to foster parents (Fram and Altshuler 2009; Blome 1997; Bruce et al. 2010). Establishing involvement and regular communication with the foster parents cultivates their daily support of educational goals. Researchers suggest that the school provide meaningful training to the foster parents regarding academic expectations, calendars, and outlets for effective communication.

Collaboration among those individuals and agencies involved with the welfare of the child in state care or identified as at-risk can make a profound impact on the child's ability to overcome obstacles and risk factors, thus, achieving necessary academic attainment. Unfortunately, various agencies often blame the others for a lack of communication, advocacy, or support for the maltreated child's educational goals. Child Protective Services holds high expectations for the school to provide any necessary resources, though these may be limited due to lack of funds and/or personnel. School officials blame CPS for delayed response times (typically due to excessive caseloads) and

a perceived lack of concern for the educational needs of the foster child (Stone, D'Andrade, and Austin 2007). In turn, CPS generally focuses efforts on keeping the child safe since they are aware of the circumstances resulting in involvement with their agency. With multiple players involved in the welfare of the child placed in state care, communication among the various agencies is critical to ensuring an optimal educational experience. Regular correspondence and meetings involving CPS, placement agency caseworkers, Court Appointed Special Advocates (CASA) workers, school district liaisons, teachers, mental health professionals, foster parents, and even birth parents (when possible and productive) could profoundly influence graduation potential and academic success along the way.

Those working with maltreated children must perceptively identify barriers to educational success and attainment, effectively communicate these to others involved, and strategize and implement potential resolutions. In a seven-county study of CPS collaboration with other agencies and involvement in educational outcomes, Weinberg, Zetlin, and Shea (2009) requested lists of educational barriers from various agency representatives. In addition to placement instability, general categories included “agency attitudes/organization, communication/collaboration, legal violation/issues, lack of knowledge, and lack of educational resources” (Weinberg et al. 2009:80). The authors discuss a law passed in California requiring school districts to enroll foster children transferring into their schools without normal required documentation such as immunization records, previous school records, and birth certificates. Oftentimes,



information regarding the foster child's current situation, history, and treatment/placement plan is withheld from the school. Depending on the quality and quantity of interagency communication, school officials may not receive access to educational history or psychological/psychiatric evaluations. Consequently, beneficial educational assessments may not occur at all, or at least in a timely manner. In the Weinberg et al. (2009) case studies of various counties and their agency collaboration, although each of the counties responded to educational barriers differently, CPS leadership served as a key component. As gatekeepers of pertinent information and legal representatives, this agency sets the tone for collaboration among other relevant organizations.

Zetlin, Weinberg, and Shea (2010) support the idea of all agencies and people involved in the lives of foster children specifically to take responsibility for their educational trajectories, rather than blaming each other with no progress being accomplished. All too often, issues are left unaddressed, needed services are not provided, preventative measures are not taken, and major behavioral problems, academic delays, and decreased motivation result. Ultimately, these children fill the discouraging statistics of foster youth post-emancipation. Bruce et al. (2010) connect a lack of accountability for these agencies to the adverse educational outcomes of this population. All groups must pool resources and work together in the best interests of foster children. "The result of removing these children from their birth families and having public

agencies assume parental rights is public responsibility for the well-being of this population” (Zetlin et al. 2010).

Zetlin and Weinberg (2004) highlight the potential influence of teachers in serving as positive role models, negotiating social capital, and ensuring effective adaptation to the new school environment. As mentioned previously, the authors also promote the role of educational liaisons provided by the local education agency to communicate with child welfare, parents, and foster parents. Specifically, they recommend that liaisons advocate for services and train educational staff on the unique needs of maltreated children. Liaisons can promote new programs such as tutoring and mentoring and initiatives that could prevent risk factors. Zetlin et al. (2006) suggested that education representatives be included in initial intake meetings for children entering care. Due to a lack of access to background information, they also recommend that state data systems include more educational information and expand access to include school officials.

One significant trend towards reducing and eliminating educational obstacles involves keeping children removed from parental custody in their original neighborhood schools, when nearby, appropriate placements are available (Altshuler 2003; Zetlin et al. 2006). By not requiring that the child transfer schools, excessive disruptions are prevented. The Casey Foundation, federally funded to promote research into the child welfare system leading to beneficial activism, established a family-to-family initiative. Goals include children remaining in their current communities, involving the community

in placement support, and maintaining ties with birth parents, when appropriate and beneficial. However, some research indicates that children may need to be completely removed from original neighborhoods highly at-risk, unsafe and without educationally stimulating resources (Fram and Altshuler 2009). Hopefully, establishing as much stability and consistency as possible to the foster child during such a tumultuous time as removal from the home, provides some sense of comfort and safety.

Bruce et al. (2010) propose further research and intervention based on a risk and resilience approach. “Resilient adaptation is one theoretical framework that incorporates a strengths-based approach and can add to an understanding of how to help foster youth succeed in school” (Bruce et al. 2010:228). Considering potential risk factors and negative outcomes for this vulnerable population, the authors propose that key risk factors are addressed specifically and intentionally through a myriad of resources and programming designed to promote increased resilience. Resilient adaptation focuses on preventative efforts, that may entail initial expense, but potential positive consequences for the child and society as a whole far outweigh any such cost. Preventing and redirecting repeated cycles including additional abuse, illegal activity, and significant mental health issues will only benefit society. Such interventions would identify and build on the child’s strengths, minimizing the risk of serious maladjustment.

Adult relationships must intentionally promote academic endeavors and school success in order to serve as educational social capital. Consistent reports show that foster parents and parents of at-risk children are significantly less likely to attend parent/teacher

conferences and school functions, and help with or monitor homework (Blome 1997). The literature points to a significant need for parent training and accountability in being more active participants in the child's educational experience. However, in focus groups conducted with foster parents, Zetlin et al. (2010) found that caregivers perceive themselves as primary educational advocates for the child and struggle to get child welfare involved in the educational process. In addition, they identified interactions with schools and attempts towards receiving necessary services as a significant source of stress. Several reported that foster children dealing with behavior and emotional issues impeding academic progress were denied special education services. Consequently, tremendous frustration ensued when the problems escalated to a point in which school officials recommended that the foster child be moved to an alternative school or placement. Foster parents believed that this extreme situation might have been prevented if adequate resources had been provided to the child upon initial enrollment in the school.

Zetlin and Weinberg (2004) also identified successful intervention and prevention programs taking place on the west coast. Educational liaison positions were established, splitting time between offices at the local school district and child welfare headquarters. In a large area like Los Angeles county, these positions have played a pivotal role in advocating for educational needs for vulnerable populations such as foster children, ensuring that effective communication among agencies is maintained, supporting the pursuit of resources needed to overcome disparities. An official tutoring program, the Treehouse Tutoring Program in Seattle, Washington targets young foster children,

providing daily tutoring and endeavors that address key concerns resulting from early trauma, abuse, and/or neglect.

Due to the tremendous amount of uncertainty and challenge facing foster youth upon emancipation from state care, researchers and advocates are calling for extended care and support through 21 years of age. Foster youth could then begin their adult lives within the safety of a foster home or group home, providing time to pursue further education and more adequately prepare for independent, adult living. In addition, funds have been allocated for this special population to cover tuition to state-supported schools. Additional monies could be allotted to assist with room, board, and supplies. Unfortunately, funding such as this is not necessarily available to those children remaining in the home deemed at-risk or with even substantiated reports of maltreatment.

As part of this extended care plan, advocates are promoting mentorship programs. Based on Osterling and Hines (2006) interviews with foster children and adults matched in a mentorship program, establishing a meaningful, trusting, supportive, quality relationship with a caring, responsible, diligent adult well before 18 years of age, improves outcomes for foster children and increases preparation for independent living. Educational success and graduation rates appear to be positively affected through these relationships. Success following emancipation from care is also favorably influenced by these relationships. Older foster children participating in the study were asked such questions as “Do you have someone to borrow \$50 from?” and “Do you have someone to go to for advice?” (Osterling and Hines 2006:246). Non-foster children may take the

presence of multiple relationships such as these for granted, but they may be non-existent for foster youth particularly as they transition to independent living. Affirmative adult relationships that provide exposure to practical life skills and general support create some of the missing social and cultural capital possessed by other children.

As recommended by Vacca (2007), some of the same methods being used to promote student graduation rates in general can be applied to foster children specifically. Goals such as raising the standards set for this particular population, refusing to settle for mediocrity, establishing ambitious educational plans in ninth grade with consistent follow-through, improving high schools to be more relevant and reaching the unique needs of all populations, and communicating the importance of staying in school regularly to this population and adults involved in the child's life. Vacca (2007) mentions additional intervention programs that have enjoyed some success. For instance, the Bill and Melinda Gates Foundation established the "3 Rs Solution" that promotes the pursuit of mastery over the basics: reading, writing and arithmetic through the means of "rigor," "relevance," and "relationships" (Vacca 2007). Rigor includes access to stimulating coursework, relevance involves connections made between coursework and real life, and relationships connect vulnerable students to adult mentors. Other programs offering similar opportunities include Knowledge is Power Programs (KIPP), high tech high schools, and the Bronx Laboratory School.

## POST-SECONDARY EDUCATION FOR FOSTER YOUTH

Studies reveal that the majority of older foster youth desire to continue their education post high school. McMillen et al. (2003) interviewed 262 foster youth involved in independent living skills classes. The youth also completed surveys indicating early experiences with trauma and current behaviors. Of the sample, 70% planned to enroll in college. Ironically, many of the students reported struggling academically and behaviorally in school. Over half of the sample reported failing a class within the past year, and most had experienced expulsion at least once. The authors expressed uncertainty regarding the causes of these difficulties: either on-going behavioral struggles, or the result of unequal treatment and stigma towards foster children on the part of school administrators, staff, and instructors. They recommended intervention in the form of vigorous tutoring and remedial services in addition to educational advocates. Seventeen states still have little or no post-secondary education support available for foster children. “Support for post-secondary education specifically aimed at youth in care may be particularly important, because few youth in care may be receiving the college preparatory services that schools may offer college-bound students, due to their placement instability” (McMillen et al. 2003:492-3).

Some research attributes the foster child’s attitude towards caregivers with increased likelihood of educational success. According to Cameron (2007), 61% of youth leaving care who met educational qualifications expressed favorable opinions of their foster families as opposed to 48% of those not educationally qualified. Of those

interviewed in the study and enrolled in college many identified their own initiative and tenacity as attributable to their college acceptance and attendance. Cameron identifies these persistent themes as “self-reliance” as described by the former and current foster youth.

The discontinuance of financial support was identified as a main struggle post-emancipation and while pursuing higher education. In fact, the lack of financial support caused the disruption of college studies for some former foster children. Additional obstacles mentioned included a sense that college administrators and instructors were not supportive and that of maintaining adequate housing during the college years. These responses support previous studies regarding the lack of social capital in navigating independent living and college experiences. The presence of a trusted mentor established well before age 18 would be vitally important during these critical years following emancipation. All young adults are vulnerable during these years of late adolescence, but the lack of social capital and minimal resources sets the former foster child up for greater risk and challenges in the quest to further his/her education.

In 1999, the federal government commissioned a study of foster alumni to assess the status and needs of this vulnerable group. The Foster Care Act of 1999, also known as the Chafee Act, proposed an increase in funding distributed to each state and designated to support foster alumni through mentorship, finances, and health care. This legislation influenced much needed policy changes on the state level. In Texas, the Department of Family and Protective Services (TDFPS) expanded the existing Preparation for Adult



Living (PAL) program, providing life-skills education to foster youth beginning at age sixteen. Participation in this program results in a stipend for rent and supplies upon emancipation. As a result of the national study, Texas extended access to Medicaid from age eighteen to age twenty-one. Furthermore, foster youth in state care on their eighteenth birthday are eligible for tuition waivers at any state college or university.

The issues resulting from child abuse and neglect are being addressed on the global level as well. In 1999, the World Health Organization's Report on the Consultation on Child Abuse Prevention, conceptualized concentrically the risk factors for child abuse. Immediately outside the individual lies the family, then community, and finally society. The compilation of research indicated risk factors at each tier. Especially noteworthy is the inclusion of the outer tier of society, acknowledging societal influences perpetuating abuse and neglect, consequently contributing to social problems. The report promotes specific prevention efforts at each tier. As progress is made from the macro level down, the individual will have opportunities to gain and maintain much needed social capital. "Social capital may provide a potent resource, capable of ameliorating risk factors either by supporting children or their families directly or at social or cultural levels" (Djeddah et al. 2000:909).

Although much progress has been made, research continues to reveal disparities and challenges for foster alumni. Their significant lack of social capital has elicited research into mentor programs and post-emancipation support groups. Texas has hired former foster youth as regional advocates to facilitate groups and help develop support

networks. A website is now available to address needs, answer common questions, and connect foster alumni with each other. Pilot interdependent living homes, initially developed in the Northwest, are designed to provide a supportive living arrangement before complete independent living.

Foster children comprise a vulnerable population in our society that is especially evident in the pursuit of academic success. Exposure to early trauma, abuse, and/or neglect coupled with multiple moves and foster placements all contribute to high risk and potential unhealthy behaviors and educational failure. Since a child's removal from the family of origin involves multiple agencies, organizations, and legalities, strong communication and collaboration are necessities in ensuring that optimal resources are provided and the foster child can reach his/her fullest, educational potential. Recent research is focused on solutions and reviews of established programs. Teams of representatives from various agencies committed to the needs of foster children will continue to make the difference in opportunities afforded to them. With over 500,000 United States children in the foster care system, we must focus energy and resources toward their academic success. Hopefully, these opportunities will prevent cycles from being repeated and help to heal the early experiences faced by this special population.

#### GENERAL OUTCOMES FOR FORMER FOSTER CHILDREN

As previously implied, outcomes for emancipated foster children tend to reflect the detrimental effects of childhoods marked by abuse, neglect, excessive mobility, instability, lack of resources and connections, and the often insufficient presence of

quality, beneficial, supportive relationships. As many as 80% of emancipated foster youth will attempt contact with their biological parents following release from state custody (Hormuth et al. 2001). Unfortunately, many of these encounters result in disappointing reunions and broken relationships (Scannepieco, Connell-Carrick, and Painter 2007). Former foster youth participating in Cameron's 2007 study revealed a lack of support from foster carers and social workers post-emancipation. Only 58% indicated that they had relationships with those that they would feel comfortable seeking out if they needed help. Interviews revealed that many have few, if any, family or friends available for support.

Courtney and Dworsky's (2006) second set of interviews with former foster children as a part of a longitudinal study found a significant lack of essential capital. Of the sample population, only 35% no longer in state care were living with biological parents or relatives, and 10% continued living with foster parents, leaving the remaining 55% living alone, in someone else's home, homeless, etc. Over 40% were unemployed during the time of the interview, and a staggering 90% reported earning less than \$10,000 the year before. A total of 37.1% of the former foster youth had not earned a G.E.D. (General Equivalency Diploma) or high school diploma at the time of the study, as compared to less than 10% of a national study of the general, same age (around 19-years-old) population. Only 18% of the former foster youth interviewed were enrolled in a four-year university as compared to 62% of the youth from the other study. Cameron (2007) found that half of the participants in her study were involved in some form of

post-secondary education one year following discharge from state care, yet acknowledge that this figure could correlate with the sample population's willingness and responsiveness to participate in the research study.

Early psycho-social factors experienced by foster youth continued to trigger and perpetuate internal stress. As many as 35% actually live with their parent(s) for a period of time (Berzin 2008). If the parent(s) are engaging in positive life choices, are no longer abusive, and able to provide a safe, supportive home, reunification could result in a gain of social capital and much needed encouragement. Otherwise, the reconnection could result in further damage through disappointment, abuse, rejection or exposure to drugs or other illegal activities. As Emile Durkheim theorized, a lack of social integration has a negative impact on mortality and morbidity. Largely due to a lack of trust instilled through early experiences and multiple placements, foster youth often experience difficulties establishing social connections. They leave state care with few adult mentors and the relationships they do have are most often connected with the child welfare system or placement institution. In a survey of former foster youth, 15% reported no parental figure to approach for support or advice (Barth 1990).

Foster alumni face considerable disadvantages compared to the general population, especially in areas that directly or indirectly affect health and academic outcomes. A marginalized and stigmatized group, once the responsibility of the courts; they struggle to overcome adversity with little support from the system. Compared to a same age cohort with no foster care history, foster alumni are at a higher risk of poverty,

low educational attainment, and engagement in criminal activity during the transition to adulthood (Berzin 2008).

Foster alumni report a lack of positive social support, and 15% could not identify the presence of a parental figure in their lives (Hormuth et al. 2001). Despite emancipation and no longer being endowed with the deviant label of foster child, alumni expressed continued difficulties relating and connecting with others, thus impeding potentially beneficial relationships. They may experience greater levels of stress than their non-foster peers due to the lack of social capital supporting the transition to adulthood.

## CONCLUSION

Considering the grave circumstances facing former foster youth, preventative programs attempting to prevent and/or end abuse and neglect in the family of origin must be pursued. Reviewing the research, it appears that keeping the family intact and healthy provides the most beneficial educational circumstances for the child. This study will add to the research literature through a focus on maltreated children and those at-risk for being maltreated in various living situations. Most of the research considering the consequences of maltreatment on educational outcomes and ability focuses on children in substitute care. However, many maltreated children in the United States do not end up in foster care situations, yet face similar challenges. Therefore, much of this thesis is informed by the literature on children involved in the child welfare system.

## SUMMARY

This chapter covered challenges and outcomes for both foster children and those at-risk for maltreatment who remain in the home. A particular interest was placed on educational issues for the sample. The role of both the family and school in building social capital and supporting educational success was reviewed through previous research. Finally, outcomes for the extreme end of the population, foster alumni, were presented in order to establish the importance of research that could support this population vulnerable to CPS involvement.

### CHAPTER III

#### THEORETICAL FRAMEWORK

One lens applicable in the assessment of potential academic outcomes in children at-risk for maltreatment is that of the possession of social capital. Social capital is broadly defined as the intentional transfer of human capital within the context of a significant relationship. Human capital, a concept attributed to sociologist and economist, Gary Becker, refers to skills, education, experiences, training, and even health possessed by an individual (Becker 1975). Becker asserts that this capital makes one more marketable and competitive, thus increasing the potential for economic gain (Becker 1975). The literature suggests that the more social capital one possesses, the greater the chances for academic success.

From the writings of Marx and his interest in how capital disparities affect life chances, there is a consistent theme throughout conflict theory-based literature analyzing the possession of capital and its effects. James Coleman and Pierre Bourdieu are early theorists that proposed the idea of social capital to define those relationships and connections that facilitate opportunities, benefits, advantages and/or privileges to the recipient in various areas. Later, researchers such as Alejandro Portes merged and expanded on these ideas and began to apply social capital to specific societal issues including immigration and migration. As Portes pointed out, the literature reveals

multiple explanations and uses of social capital (Portes 1998). Bourdieu specifically connects social capital with “useful relationships that can secure material or symbolic profits” (Bourdieu 1986:22). Coleman defines social capital in terms of function, including a productive quality in which achievement, otherwise impossible, is reached, and would not be, without the attainment of this social capital. It consists of resources that will make possible the realization of one’s goals or interests (Coleman 1988).

Research also links social capital to the possession of additional forms of capital. For example, the social capital resulting in attaining desired employment can directly result in the increase of financial capital. Even at its introduction by Coleman in the 1980s, social capital was linked to the attainment of human capital. Coleman’s early research clearly draws connections between the ownership of social capital and academic achievement. It appears that the stronger and greater the amount of social capital, the greater the likelihood for academic success.

I will explore further the unique academic challenges facing at-risk and/or maltreated children and, specifically, the potential effects of social capital on their potential academic achievement. Using social capital theory as a lens, I will consider involvement and quality of relationships with key adults and the human capital possessed by those adults. The availability of social capital will then be measured in relation to academic achievement to determine its influence, if any. Based on the results of the assessment, I will address possible areas for future research and advocacy to support this particular population.



## DEFINING SOCIAL CAPITAL: COLEMAN

Coleman's original concept of social capital emerged from his consideration of rational action in the context of social organization (Coleman 1988). He expands the idea in relation to its role within social structures that results in action. Social capital is productive and necessary to certain situations, but its usefulness may vary in differing circumstances. Coleman considers the interaction of obligations and expectations with the assumption of trustworthiness within the context of relationships as facilitating social capital.

Coleman contends that the possession of human capital is inconsequential without the added existence of social capital in the form of relationships. Befittingly, he explains that families in which parents possess academic experience, knowledge of a particular discipline, or other skills applicable to education, yet do not communicate or share these with their children, obstruct the transfer of social capital. In fact, he remarks that it is social capital that makes access to adults' human capital possible for the child, and the absence of the adult or a weak relationship is referred to as a structural deficiency (Coleman 1988).

Coleman illustrates this phenomenon with the concept of intergenerational closure. Connecting school and familial influences, he asserts that relationships among the child and peers, as well as among the parents of the child and the parents of peers are essential for this sense of closure. When the parent lacks relationships with other parents and/or the child lacks consistent peer relationships, the resulting open network impedes

the procurement of social capital. Since foster children experience high rates of mobility in both their home/familial situation and school settings, it is logical to assume intergenerational closure to be severely lacking. This lack of closure impedes the trustworthiness and effective norms that promote social capital.

In Coleman's study, he found that the high school drop-out rate nearly doubled from a family who had never moved to one that had moved twice. Maltreated children often experience multiple moves, including possible separation from biological parents and occasionally siblings. According to Coleman (1988), "the social relations that constitute social capital are broken at each move." Increased rates of mobility are negatively correlated with the availability of intergenerational closure (p. 113). Coleman considers additional extra-familial sources of social capital such as religious service participation, in which he found a decisive relation (19.5% high school drop-out rate for those who rarely, if ever, attend services as compared to 9.1% who frequently attend). His research supports the idea that closed social networks (those with intergenerational closure) increase the interest in academic endeavors and avoidance of deviance.

#### DEFINING SOCIAL CAPITAL: BOURDIEU

Bourdieu's distinction of the various forms of capital portrays social capital as transmission of cultural, symbolic, or economic capital within an established social network (Bourdieu 1986). He tends to explain social capital with economic terminology, as a system of profits, investment strategies, and group membership. Bourdieu differs from Coleman in that he avoids reduction of social capital to solely social exchanges.

However, he also alludes to connecting all capital to economic capital. Bourdieu addresses the dissemination of capital as requiring some cost in the form of labor and time. Resonant of more conflict-oriented theories, he connects the ability to acquire capital to social structure reproduction. Thus, he connects the disparate ability to acquire social capital to society's (particularly in the U.S.) established hierarchical structure. The possession of social capital often produces more social capital (and as a result, human capital). For instance, children surrounded by adults who possess and are willing to impart this capital have more connections to relationships that will foster needed capital. Whereas, children whose parents possess limited capital and may not have the time to spend helping to build this capital within their children will likely have very few avenues for to pursue these relationships. Fram (2004) points to this concept of social capital as contributing to a competition for resources and a demonstration of inequality.

#### DEFINING SOCIAL CAPITAL: PORTES

Alejandro Portes identifies the roles of social capital (Portes 1998). He determines the benefits of considering social capital to consist of the positive repercussions of sociability and the focus of non-monetary forms of capital that contribute to power and influence. Portes proposes methodical analysis of social capital through the differentiation among resources being transferred, the possessors of this capital, and the original sources. He criticizes Coleman for not adequately and clearly distinguishing among each element. Portes does agree with Coleman that social capital is secured within the context of social relations and networks. From his review of the literature, he defines

three functions of social capital including sources of social control, familial support, and advantages of relationships external to the family (Portes 1998). Like Bourdieu, he relates the necessity of particular relationships to attain certain measures of social capital to the reality of social stratification. However, by discerning three foundations of social capital, he reveals how it is possible to compensate for the lack of these particular channels.

Portes' research particularly focuses on issues pertaining to immigrant families, who likely lack relationships that facilitate the flow of (or even have the capacity of imparting) social capital. The mobility and social disruption experienced by immigrant families could be paralleled to the circumstances of foster children disconnected from families of origin and who undergo high rates of mobility. Like immigrants, network-mediated benefits may be particularly difficult for foster children to obtain since their time in any one place is uncertain and likely limited. However, without the advantages of strong family ties, acquisition of social capital from familial-type relationships depends on the strength of surrogate associations.

Of particular relevance to the plight of foster children is the potential of negative social capital considered by Portes. This negative capital could occur by ostracizing those outside the group, establishing imprudent stakes on the success of group members by those less ambitious, creating excessive solidarity that dictates high levels of conformity, and discouraging unity to maintain group cohesion at the lowest common denominator. These examples could comprise the negative consequences of social capital that Portes discovered as themes throughout the research literature (Portes 1998). The driving need

for social capital may lead at-risk children to deviant groups and unorthodox sources of social capital. Research reveals the propensity toward gang and criminal activity for maltreated children as significantly higher than that of the general population (Vaughn, Shook, and McMillen 2008). The lack of social capital could be said to create a certain vulnerability to association in groups that provide ready acceptance and capital, but not in the direction of academic achievement and support of societal normative behavior (Salzinger, et al. 1993). In fact, according to data reported in the Texas Foster Care Transitions Project, one year following emancipation, 27% of foster alumni reported being arrested at least once, 27% revealed time spent in jail, and 14% were currently incarcerated at the time of data collection (Hormuth, et al. 2001).

Perry (2006) utilizes a similar idea, social network theory, to consider the effects of social network disruption on foster children. This perspective attributes life chances and individual decisions and outcomes to social bonds, membership within groups, and the context of community. Perry evaluates the strength of family, child welfare, and peer networks. She finds a negative correlation between the strength of these networks and psychological distress. Perry acknowledges that the disruption of social relationships/networks within the family of origin can actually be reconstructed through the foster care system. The strength of these critical networks closely parallels the valuation regarded through social capital theory, revealing the importance of establishing these relationships for foster children.

## CRITIQUES OF SOCIAL CAPITAL THEORIES

In her critical assessment of utilizing social capital to measure youth progress and development, Morrow (1999) warns against the broad elucidations of the idea that could lead to potential erroneous conclusions. Like Portes, she recognizes plausible negative repercussions including inter-group demands that impede social mobility. Consequently, she advocates measures of quality, rather than quantity, of social capital. Her critique seems to place greater value on economic capital. She approaches the idea of social capital benefits with more cynicism, especially when she speaks to promoting education in impoverished areas. However, Morrow does recognize the greater societal implications of social capital in her acknowledgement that it can serve as a utilitarian link from micro to macro social behavior. Morrow argues that much of the research literature concentrates on parents as the chief negotiators of social capital for their children, yet the children can arbitrate acquisition independently.

In a later article, Portes (2000) actually questions even his own use of social capital, also pointing to the varied definitions of the term and potential overuse in the literature. He cautions that spurious relationships with other variables could be overlooked with too much credence being placed on social capital. Portes is especially critical of the use of social capital to explain more macro level issues such as those on the community, country, and even national levels. He identifies the precariousness of relating social capital to all positive aspects of society or relationships. His embedded research on the effects of social capital on immigrant children's scholastic achievement substantiates

his trepidation, as his initial strong correlation is refuted through a set of control variables, revealing a spurious relationship with social capital. Portes stops short of completely dismissing the benefits of social capital, but conveys a strong warning against overly attributing all positive social factors to its presence.

## CONCEPTUALIZING SOCIAL CAPITAL

Regardless of the criticism, research continues to examine adult mediation of social capital on behalf of children. Haghighat (2005) considered the presence of school-based social capital through the measure of a school's *ambiance* (social capital available by school staff and administration) and outreach to parents/guardians and its link to individual academic achievement. The study found that schools with heightened outreach efforts, and, thus, increased parental involvement, showed elevated levels of school-wide achievement. Research consistently identifies schools as vital settings for the transmission and acquisition of social capital (Fram 2009, Morrow 1999).

### *Social Capital in Relation to Education*

Coleman and Hoffer (1987) address the presence of social capital and the importance of significant adult relationships in a child's life. When these relationships do not exist, the authors refer to this absence as "deficiencies." These deficiencies can be structural (physical unavailability) or functional (the lack of strong relationships in spite of physical presence). Unfortunately, their research suggests that social capital begets social capital in the sense that teachers hold higher expectations for achievement for students possessing more social capital than those who do not (Coleman and Hoffer

1987). In the Coleman Report, the authors indicate that a student's "attitude factor, which appears to have a stronger relationship to achievement than do all the 'school' factors together, is the extent to which an individual feels that he has some control over his own destiny" (Coleman et al. 1966). As a result of abuse and neglect, as well as the removal from their families and neighborhoods of origin, foster children often possess little hope, let alone control over their own lives. Thus, they enter a new school environment lacking the confidence or supportive connections that will ensure success.

Parental involvement in the academic experience serves as a strong source of social capital for students. Parent participation and awareness of academic expectations and school events, including parent/teacher meetings, is associated with higher academic success (Oyserman et al. 2007). It is also found to be negatively related to child abuse and neglect (Reynolds and Robertson 2003). The benefits of parental involvement include increasing the likelihood of adolescents attending college by 11% (Orthner 2009).

Since most foster children lack this support from biological parents, Child Protective Services (CPS) representatives, foster parents, caseworkers and others involved in the welfare of the child must communicate effectively with schools and be involved in the child's educational process as much as possible in order to regain some of this lost capital. According to Haghighat (2005), these relationships must be reciprocal, with the school also initiating involvement with surrogate parents. Haghighat's study looked at sources of social capital at both the micro (familial) and meso (school) levels. Haghighat found an "underlying importance of parental involvement as well as the



important role schools play to create a positive environment for pupils to learn and parents to become involved” (Haghighat, 2005:228). The social network disruption that occurs when children experience a high rate of mobility and the loss of contact with family and friends upon removal from the care of biological parents creates a loss of social capital. Abuse, neglect, removal from the home, an overall sense of rejection, and general instability all contribute to social capital loss and deficiencies (Perry 2006). However, Perry found that the longer a child remains in a stable foster home, the greater the protective effect on mental health (Perry 2006).

In an educational sense, social capital involves connections to resources that promote normative, expected behaviors, and knowledge that supports and enhances that being presented in school. Research consistently ties access to social capital to educational success and attainment. Typically, parents act as the sources of this capital. When this relationship is disrupted or unhealthy, children can experience feelings of insecurity, uncertainty, weak identity, and lack of support. This depressed social capital is easily evident in the educational environment in diminished ability, academic confidence, and achievement (Haghighat, 2005).

Although children removed from parental care experience disruptions in all areas of their lives, more often the new social networks established provide more social capital than possessed previously, which carries greater potential for educational success. However, the structure of schools promoting normative standards based on white, middle-class values, may be foreign to the foster child coming from a much different

environment, with perhaps little or no contact with the school system. Therefore, the quality of social capital, rather than simply quantity, is an important measure of promoting academic success in at-risk children (Lee 2009).

Agencies involved with the child need to network among each other in order to ensure that needed social capital is provided to the child, thus promoting positive relationships with teachers, administrators, and other educational support staff. Although foster children tend to be over-represented in special education services, research shows that they continue to lack access to this aforementioned support from the educational community (Fram and Altshuler, 2009). This vulnerable population needs special advocates to ensure that their needs are met, and that they (the children) do not inadvertently “fall through the cracks of the system.” When children are removed from care prior to school-age or remain in high risk homes, it is critical that they are enrolled in early childhood intervention services and Head Start programs. Maltreated children need to establish social bonds with not only school administration, staff, and teachers, but peers as well. This form of social capital instills a sense of connectedness and promotes educational success and peer support. “School social workers need to identify, develop, and nurture positive adult relationships in foster children’s lives, ensuring long-term commitments that will last beyond educational plans and particular foster care placements” (Fram and Altshuler, 2009:18).

According to Avery and Freundlich (2009), a copious number of foster children leaving care possess inadequate and insufficient amounts of social capital that are

indispensable for mediating through the challenges and responsibilities of adulthood. Focus groups of older foster youth, alumni, and caseworkers revealed consistently felt needs for social capital, especially the necessity for supportive relationships and networks post-care that are able to provide resources that would assist the pursuit of educational attainment and other basic needs (Scannapieco et al. 2007). Unfortunately, the experiences of foster children while in care often do not promote the accumulation of social capital or academic success. In fact, there is some evidence alluding to the deletion of social capital by foster parents, biological parents, and others actually discouraging the pursuit of academic aspirations and general ambition (Cameron 2007). More often, social capital lacking that would support academic success is the lack of consistent admonition for individual scholastic goals or mentors to help navigate the educational system (Zetlin et al. 2006). The literature points to the stunning influence the degree of advocacy for education available to at-risk children has on their decisions regarding future academic ambitions (Cameron 2007). The possession of social capital appears to significantly impact educational attainment and achievement.

## **SOCIAL CAPITAL AS A THEORETICAL MODEL**

The theoretical idea of social capital will guide this thesis as its influence on academic achievement (and potential educational achievement) is evaluated. Social capital is a two-fold concept, merging the idea of human capital with quality of relationships possessing human capital. It involves the transfer of education, experiences, knowledge, and training through intentional relationships. For this specific sample

population of at-risk, early adolescents, relationships with mother/father figures and nearby adults will be reviewed in order to determine the potential presence of intentional relationships that could foster social capital. The theoretical model will be used to address the two hypotheses of the study.

Key concepts regarding these relationships include parental support and involvement. Does the child perceive a high quality relationship with the parent(s)? Does s/he see the custodial parent(s) as being involved in his/her daily life? Time is a factor to consider within these concepts. Has the parent consistently been involved and supportive, or is this support something new? Conversely, were the parent(s)/guardians involved and supportive in the past, but not recently? Since the specific area of interest is social capital's influence on academic achievement, both emotional and educational support will be examined. In the case of at-risk families particularly, a parent could be highly supportive of a child in some areas, but not in others, especially those that might pose some sort of a threat (such as achieving higher education levels).

The second requirement of social capital is the possession of human capital that could benefit another party. In this case, the human capital possessed by the parent(s)/guardians and other adults close by is reviewed. What is the highest academic grade level reached by the caregiver? What are the educational aspirations and expectations of the parent(s) for the child, and how are those perceived by the child? What kind of educational support is available through relationships with other adults in the neighborhood?

The focal measure of this thesis is social capital's potential influence on academic achievement (and, thus, potential educational achievement). Although multiple studies have utilized academic achievement or ability as an outcome variable, it is difficult to measure. Coleman used high school drop-out rates in his introductory development of the theory. He alluded to the use of standardized test scores as another potential measure. Although we cannot make any conclusive determinations based on a child's score on one portion of a standardized test, reading scores on the WRAT-3 were chosen since the test is designed to focus on the capacity for reading rather than reading comprehension. Reading is paramount to every other academic area, so this measure closely addresses the potential for academic achievement. The WRAT-3 is widely used both alone and parallel to tests of comprehension. It is used as both a measure of ability and potential educational achievement.

This thesis will evaluate the access to social capital and its potential influence on academic achievement. Do at-risk children and those that have confirmed cases of maltreatment history have access to social capital? Does this social capital influence their potential academic achievement? Considering that the various regions within the overall sample population had varying degrees of maltreatment history, does the severity of these experiences influence the possession of social capital and its influence on academic achievement? Using social capital theory as a framework may help determine if educational, familial, and other social institutions should intentionally promote social capital in order to improve educational outcomes for our children.

## SUMMARY

This chapter defined components of the theoretical framework, social capital, and how it will be used to determine influence on academic achievement. A review of the development of the theory considered ideas presented by Coleman, Bourdieu, and Portes. Literature utilizing and analyzing social concept theory was presented to reveal the ways it has been applied to research and even scrutinized. The specific application for the current thesis was explained with attention given to each conceptual area. Finally, the theoretical model was connected to the hypotheses.

## CHAPTER IV

### DATA AND METHODS

This chapter will explain the variables used in the study, and initial descriptive statistics performed on the dependent, independent, and control variables. A quantitative design was chosen for the study, which will be explained in this chapter. The dependent variable, academic achievement, will be measured by reading scores on a standardized test. The design will include two models to test on the dependent variable. The first model will test the entire sample population together, with and without the control variable. The second model will compute the effects of social capital on academic achievement by region, allowing for a comparison of risk as a factor.

The independent variable, social capital will be measured by multiple variables measuring various aspects of social capital defined in the theory. Income and geographic region will serve as control variables. An initial description of all variables is provided in Table 1 (For all tables, please see Appendix C.). Frequency distributions and descriptive statistics were run on each variable. Table 2 provides the frequency distribution for each independent variable, the dependent variable, and the control variable. Table 3 provides description of the centrality and dispersion for each variable.

## RESEARCH QUESTION

This thesis asks the question: Do the possession of social capital and level of risk in children determined at-risk for maltreatment in the United States positively affect potential academic achievement?

## HYPOTHESES

This study will seek to determine whether access to and possession of social capital and level of risk measured by children identified as at-risk for maltreatment have a positive effect on academic achievement. For purposes of the current analysis, academic achievement will be measured by the capacity for reading on grade level that should influence the child's fulfillment of expected academic objectives. Based on previous research in this area and guided by the research question, the following hypotheses will be evaluated.

**H<sub>1</sub>:** Access to and possession of social capital will have a positive effect on academic achievement.

**H<sub>2</sub>:** The greater the risk or history of maltreatment in children, the lower the academic achievement.

## DATA

### *Data Source*

The hypotheses will be tested using secondary data analysis. Data was obtained from the National Data Archive on Child Abuse and Neglect (NDACAN). In 1991, researchers conducting a wide-spread, longitudinal research study funded by NDACAN



began collecting data at five different sites throughout the U.S. as part of the Longitudinal Study of Child Abuse and Neglect (LONGSCAN). The over 1,300 total participants were children identified as at-risk for maltreatment or who had confirmed Child Protective Services (CPS) cases. Data collection occurred every two years, with some minor retrieval by phone on the off years. Researchers reviewed CPS records, interviewed both the children and caregivers, and administered various instruments during formal data retrieval.

The original sample size of this study is 954 children at or around age 12. Since children began the study at various ages, there was not one year in which all the data was collected. The information received was retrieved between July 1, 1991 (most likely late 1990s at the earliest) and October 15, 2007. LONGSCAN began to include the child's self-assessment at this particular age, so variables include responses from both caregivers and children depending on the particular instrument. The data used for this study was obtained at the onset of adolescence and when the Wide Range Achievement Test (WRAT-3) reading subtest was administered. The potential spuriousness of household income will be considered through a control variable.

#### *Data Files*

LONGSCAN data arrived in separate files within the Statistical Package for the Social Sciences (SPSS) software (arranged by the individual instrument administered the sample). All variables being used for the current study were merged into one master file for analysis purposes. Information from the following instruments was included:

About My Parents (AMPA0807); Parents' Future Expectations (PFEA0807); Neighborhood and Organizational Affiliation (NOAA0807); Father-Child Relationship (FCCA0807); Mother-Child Relationship (MCCA0807); Caregiver Demographics (DEMB0807); and Wide Range Achievement Test (WRAT-3) Standard Score.

#### *Data Collection*

The data collection center or child's geographical region included in the analysis will serve to determine any regional and/or sample population differences that could affect outcomes. Data was retrieved from five locations throughout the United States (regional identifiers included): Baltimore (NE); North Carolina (SO); San Diego (SW); Seattle (NW); and Chicago (MW). Circumstances determining identification of at-risk for maltreatment varied from site to site.

The sample from the Baltimore site (N=185, 19.4% of the sample) was a combination of inner city children identified primarily as at-risk for neglect. This sample population includes children who, when under the age of two years, were diagnosed as failure-to-thrive with non-organic origins, whose mothers were deemed HIV positive or at high risk for contracting the virus, and those recruited from a clinic serving a primarily impoverished population. The Chicago sample (N=132, 13.8% of the sample) includes both children with at least one substantiated maltreatment report with Child Protective Services (CPS) within the year prior to recruitment and those with no CPS substantiated records within the year prior. The entire sample from the Chicago site has household incomes below the poverty line.

Unlike the other data collection centers that recruited from urban areas, the North Carolina site (N=164, 17.2% of the sample) obtained a sample from areas throughout the state (including urban, suburban, and rural areas). This sample, retrieved at various hospitals and clinics from another study, included children labeled with potential medical risk, born to young, impoverished, single mothers. The San Diego sample (N=226, 23.7% of the sample) is the most significant in regards to maltreatment history, since it includes children who were all removed from their homes before age three and a half due to substantiated reports of abuse and/or neglect. Some of the sample has since been reunited with family, others remain in substitute care, and a portion have been adopted into other families. Finally, the Seattle sample (N=176, 18.5% of the sample) also includes a high rate of children who have confirmed maltreatment cases. This sample was retrieved from CPS reports that may or may not have been substantiated, yet still placed the child in an at-risk category for maltreatment.

Data collected at each individual site was subsequently sent to a central processing site at the University of North Carolina's LONGSCAN Coordinating Center. The data was compiled at this location and arranged for analysis separately or alongside the other regions involved. Ultimately, the data is housed and distributed through the National Archives for Child Abuse and Neglect (NDACAN) at Cornell University. The data arrived de-identified; nonetheless, protective measures were arranged between Cornell University (NDACAN) and Texas Woman's University's Institutional Review Board for the safe treatment of the material.

## VARIABLES

### *Dependent Variable: Academic Achievement*

Research operationalizes academic achievement using a variety of measurements. Scores on standardized achievement tests and term grades in various subject areas tend to serve as common meters, along with behavioral issues, grade retention, and high school drop-out rates (Coleman 1988; Farruggia 2006; Fram 2009; Ryan et al. 1995). Investigators typically review school records and reports from teachers and school administrators to obtain this data (Ryan et al. 1995).

For this analysis, the child's score on the reading subtest of the Wide Range Achievement Test (WRAT-3) will be used to assess academic achievement. The WRAT purposely eliminates reading comprehension from the assessment, focusing on the capacity for reading. The WRAT has been widely used since its initial development in the 1940s as a measure of potential math and reading achievement. Each item has been tested repeatedly for reliability and validity. This study will consider specifically the reading standard score which is designed for a particular age cohort.

The scores ranged from 47 in the deficient zone to 137, classified as superior, with the mean at 92.78, considered an average score on the assessment (see Table 4). Of the sample, 855 children actually took the test and serve as the final sample population. Breaking the scores down into the categories proposed by the WRAT documentation, 59% scored in the average to very superior range, while about 41% fell into the deficient to low average range (see Table 3).

### *Independent Variables: Components of Social Capital*

Throughout the literature researchers measure social capital in a variety of manners based upon the exact definition determined. Typically, a combination of factors constructs this variable. Some facets focus on the probability of school-based social capital and investigators may consider absenteeism, school mobility, participation in extracurricular activities, comfort levels in discussing issues with teachers or school administration, available social capital at the school and willingness to transfer it to students, and the level of participation by caregivers in educational planning (Fram and Altshuler 2009). Psycho-social identifiers such as academic expectations by caregivers and school staff and individual educational aspirations have also been used as measures revealed through interviews, surveys, and focus group responses. Familial factors reviewed included parents monitoring homework, assisting with homework, and keeping track of school expectations. Also account for was the frequency of talking with parents about personal experiences, exposure to educational activities, and familial advocacy for academic aspirations (Coleman 1988).

The collection of independent variables that will serve to measure social capital in this study is based primarily on Coleman's 1988 theoretical analysis. For instance, the measure of caregiver's highest level of education received, alongside the child's perception of the relationship and involvement with his/her caregivers will serve to assess the opportunity for any possession of human capital to be transferred to the child, thus becoming social capital (Bourdieu 1986; Coleman 1988). The involvement of other

adults in the neighborhood, neighborhood stability, and child's time in the neighborhood will also be a part of the measure of social capital. The elements of social capital will remain separate for the analysis, rather than collapsing them into a single, social capital variable.

Seven composite index variables were created to serve as independent variables. LONGSCAN created the composition of each index variable, along with its label, and provided initial statistical information in the *Measures for Assessment of Functioning and Outcomes in Longitudinal Research on Child Abuse, Volume 3: Early Adolescence*. The indices included specific questions extracted from multiple instruments administered to parents/caregivers and their children at age 12 as part of the longitudinal study. Most instruments used were administered to the adolescents to gain their perceptions. In fact, this was the first stage of the longitudinal study in which the children were administered the instruments in addition to the parents/caregivers. The composite variables were compiled as recommended and previously analyzed in different capacities by the LONGSCAN research team. Please note that while LONGSCAN used the mean of the items, the current study used the sum score of the items when composing the variables.

A sum of the scores from each component question taken from a particular instrument will be used to determine the strength of the measure in the analysis. A more detailed account of each component of the index variables is available in Table 4. A reliability analysis using Cronbach's Alpha was run with all components for each composite index variable to check for correlations. Table 5 reveals the Cronbach's Alpha

results for each index. Each index was assessed for a Cronbach's Alpha at or above 0.70 as the standard by which reliability among components is considered strong.

Indices measuring emotional support, educational support, neighborhood collective efficacy, relationship with father, involvement with father, and relationship with mother all met this criterion. However, involvement with mother fell just below the standard at 0.682. Since none of the sub-variables for this variable would make a significant difference positively if deleted and the overall score was so close to the threshold, it was left in the analysis. There were three initial indices (neighborhood stability (NBHSTA), father's educational aspirations for the child (EDAFTH), and mother's educational aspirations for the child (EDAMTH)) that were left out of the analysis due to weak correlations. These were replaced by a significant single variable from the original index deemed adequate to measure the original variable.

The adolescents' perspectives of parents/caregivers were gathered in index variables measuring emotional support of the parents (EMOSUP), educational support (EDUSUP), relationship quality with the father (RELFTH), relationship quality with the mother (RELMTH), recent involvement with the father (INVFTTH), and recent involvement with the mother (INVMTH). The parent/caregiver's perceptions were measured in the index of neighborhood collective efficacy (NBHCLE).

Emotional support and educational support of the caregiver for the child were measured using index variables explained in Table 4. The composite score of emotional support (EMOSUP) ranged from 0 to 42 with a mean of 34.5238. Scores for educational

support (EDUSUP) ranged from 0 to 24 with a mean of 19.5523. Questions for both measures were from the About My Parents instrument administered via computer to the children involved in the study. The children were asked to reveal aspects of support from the past (elementary school) and more recently (within the last year). Responses to individual questions were coded as 0 = never, 1 = almost never, 2 = sometimes, and 3 = a lot.

One of the child's caregivers was asked to indicate the highest level academically expected out of the child. Responses were coded as follows: 1 = leave as soon as possible, 2 = not graduate from high school, 3 = get a GED, 4 = high school graduation, 5 = community college or vocational school, 6 = four-year college, and 7 = graduate or professional school. The mean for this variable is 5.40, revealing that on average, most caregivers expect at least some college. Results indicate that 32.1% expect a high school diploma or less, 9% identified community college, 43.5% expect a four-year college, and 15.4% have their hopes set on graduate or professional school for their child.

The relationship and involvement of each parent was assessed using the instruments, Father-Child Relationship and Mother-Child Relationship. The assessments were administered directly to the child with a series of questions revealing his/her perception of the relationship and practical interactions that would reveal relationship quality and involvement (see Table 4). Not surprisingly, the number of cases for the three variables associated with the father was significantly lower than that of the mother (678-



683 versus 849-861, respectively), potentially revealing a significant number of children in the sample with no father figure involved in their lives.

From these assessments, four index variables were created to measure the quality of relationship with the father (RELFTH), quality of relationship with the mother (RELMTH), involvement with father (INVFTTH), and involvement with mother (INVMTH). Scores for the relationship with the father ranged from 4.00 to 30.00, with a mean of 24.4802 and with the mother, 5.00 to 30.00, with a mean of 25.9558. Since a higher score indicates a greater strength of the measure, most children revealed high quality relationships with both their fathers and mothers (57.5% responding in the highest range for fathers and 64% for mothers). However, the 200 fewer cases involving the father must be considered. Scores for involvement with the father and mother ranged from 0 to 9.00, with a mean of 3.6779 for the father and 5.0836 with the mother, revealing a significantly higher average perception of involvement with the mother. Scores of 6-9 occurred in 24% of the cases when asked about the father and 44.4% when asked about the mother.

Educational aspirations of both the father (EDAFTH) and mother (EDAMTH) for the child were assessed through the answer to the question: *How disappointed would s/he be if you did not graduate from college?* Responses included 1 = not disappointed at all, 2 = not very disappointed, 3 = a little disappointed, 4 = somewhat disappointed, and 5 = really disappointed. The means for both the father and mother were very similar (4.22 and 4.31, respectively) with the perceived aspirations of the mother slightly higher.

Children's responses included 56.9% believing that their fathers would be really disappointed if they did not attend college and 58.8% perceived the same from their mothers.

The primary caregiver was asked to reveal the highest level of education completed (CGHGRC). Responses ranged from 0 to 20 based on years of schooling received. The mean number of years completed is 12.20, just over high school. This measurement will reveal any human capital in the area of educational experience that could be transferred to the child through social capital. Of the sample, 37% indicated personal academic experience beyond high school.

Social capital is also available on the neighborhood and community level. Chaskin et al. (2006) measured what they referred to as community social capital through communal efficacy, activism, and associations in various institutions and organizations housed within the community. They observed the tendency for members of the community to support and monitor the youth and gauged overall social solidarity and trust. Clearly, issues such as high rates of mobility and the presence of social ills within the community will hamper the potential social capital available through this venue.

Within this study, the effects of the child's neighborhood and its potential to serve as a source of social capital are measured by four variables. First, the variable NBHTME records how long the child has lived in the current neighborhood. This variable is coded as follows (with percentage of respondents): 0 = less than one year (21.1%), 1 = 1-2 years (20.0%), 2 = 3-5 years (23.0%), and 3 = more than 5 years (35.8%). The mean of 1.74

indicates an average time spent in the current neighborhood as at least 1-2 years.

Similarly, the variable CHDMVE reveals the number of residential moves the child has experienced during the last five years. Responses actually ranged from 0 to 20 moves, with a mean of 2.03. Only 26.2% of the sample reported more than three moves in the last five years.

An index variable, NBHCLE was created to measure the collective efficacy of the neighborhood as perceived by the respondent. The sum of responses to 11 different questions on the Neighborhood and Organizational Affiliation instrument composed this measure. Questions asked ranged from inquiries into whether neighbors were willing to help and intervene with issues such as safety and guidance for the children. Exact questions asked can be seen on Table 4. The score (strength) of neighborhood collective efficacy ranged from 1.00 to 44.00 with a mean of 31.0275. The majority of respondents revealed a moderate to high level of collective efficacy with 84% scoring between 25 and 44.

The final neighborhood measure used in the study is neighborhood stability, labeled NBHSTA. This variable is a response to the statement, "People don't live in this neighborhood long." Responses were coded as 1 = strongly disagree (N=258, 27.8%), 2 = disagree (N=501, 53.9%), 3 = agree (136, 14.6%), and 4 = strongly agree (34, 3.7%). The mean of 1.94 indicates that most disagree with the statement.

### *Control Variables: Income and Region (Level of Risk)*

Unique to the consideration of maltreated children could be an analysis of the severity, onset, and duration of abuse or neglect as factors detrimental to acquiring social capital. Issues resulting from this background could significantly impede the child's exposure to and possession of necessary social capital. Using the dummy variables for each region, consideration will be placed on the specific data collection center from which the child was associated. Each region had a different overall severity level of risk since the sample populations were retrieved from different sources.

Analysis will also include controlling for caregiver income level, determining its individual effect on academic outcomes. Since low socio-economic status was a common theme for each site during data collection, it is important to consider its effects on the results of the analysis. Income levels were coded as follows: 1 = less than \$5,000, 2 = \$5,000 - \$9,999, 3 = \$15,000-\$19,999, 5 = \$20,000-24,999, 6 = \$25,000-29,999, 7 = \$30,000-\$34,999, 8 = \$35,000-\$39,999, 9 = \$40,000-\$44,999, 10 = \$45,000-\$49,999, and 11 = more than \$50,000 per year. Not surprisingly, of the 909 respondents aware of their income, the majority (62.2%) identified yearly household incomes of less than \$30,000. The mean of 6.06 indicates an average income of \$25,000-\$29,999 for the sample.

### **METHODS**

The data arrived electronically in separate SPSS files according to instrument administered. A master SPSS file was created, extracting the variables needed from various instruments. Variables were renamed for purposes of the study.

An ordinary, least squares (OLS) linear regression is used to assess the relationship between the independent variables measuring social capital and risk and the dependent variable, academic achievement. A linear regression helps determine if the independent variables, in this case, social capital, are useful in predicting the dependent variable (academic achievement). Essentially, does a change in the independent variable result in a change (positive or negative) in the dependent variable? Does more social capital predict higher test scores? This statistical model will also serve to measure the strength of the relationship between the independent and dependent variables. The effects of various degrees of risk will be considered through separate regression on each region separately, since each data collection site recruited participants so differently. Although all participants were identified as at-risk for maltreatment, the actual history of substantiated abuse and/or neglect reports varies greatly among the regions.

## LIMITATIONS

The sample is derived from five sites across the country. Each site focused on a different aspect of child abuse, neglect, and at-risk status. Regional characteristics ranged from children who were removed from the home due to abuse and/or neglect before 3.5 years of age to those simply labeled at-risk due to socio-economic status. While pooling the data can be useful to analyze the overall effects on a varied population of at-risk children, the background and experiences of the individuals involved with the study may prevent specific interpretation.

A significant number of cases were missing from the reading scores, indicating that ninety-nine children may not have taken the test, or the scores were deemed invalid. Furthermore, despite the common use of standardized test scores to measure potential academic achievement, they are certainly not without flaw. Multiple factors can influence test scores including the child's health, understanding of the questions, and general well-being the particular day the test was administered. Therefore, we can only make strong predictions of academic achievement using the WRAT scores, rather than absolute, conclusive determinations that might require more extensive and holistic assessment.

## SUMMARY

This chapter presented the hypotheses for the study and explained the quantitative research method to be used. The dependent, independent, and control variables selected in context of the research literature review and theoretical perspective were presented and explained. An overview of the data source and collection was offered, including an account of the sample population differences among the various regions. Finally, the potential limitations of the study were discussed.

## CHAPTER V

### RESULTS

This chapter covers the statistical analysis run on the dependent variable, reading scores on the Wide Range Achievement Test (WRAT-3), used to measure academic achievement, and independent variables identified as the possession of social capital in children identified as at-risk for maltreatment in the United States. The study involves the use of the Statistical Package for the Social Sciences (SPSS) system for statistical analysis purposes. Both hypotheses were tested following initial correlations run between variables to determine the usability of the variables with one another.

An ordinary least squared regression (OLS) method was selected for analyzing the relationship between the set of independent variables to measure social capital and the dependent variable, academic achievement. Income was included as a control variable. Each of the five regions from which the sample population was recruited were transformed into indicator variables and included in the analysis. The following process occurred in order to analyze the potential correlation between the dependent and predictor variables.

As mentioned previously, seven index variables were created as composite measures of various aspects of social capital. However, when the variables were created, a sum of the responses was used, rather than the mean of responses as used by

Longitudinal Studies of Child Abuse and Neglect (LONGSCAN). After a correlation analysis using Cronbach's Alpha was run on all variables included in each composite index, a correlation was run on all independent variables with one another.

#### CORRELATION TESTING

Pearson Product-Moment Correlation was used to investigate if high or low scores with one independent variable determined the same for another. The standard of 0.85 was used to determine correlations that would mean a discontinuation of one of the variables in the analysis. In reviewing the data from the Pearson's correlation test, none of the variables seemed to be a predictor of another, all falling below the 0.85 standard (see Table 6).

For each interval-ratio independent variable, a bivariate scatterplot was created. The scatterplot serves as a visual representation of the strength of the regression equation in anticipating the dependent variable. Points closer to the line indicate a stronger likelihood of prediction. Scatterplots with the dependent variable, reading scores (RDGSCR), were run with the following independent variables (individually): emotional support (EMOSUP), educational support (EDUSUP), collective efficacy of the neighborhood (NBHCLE), quality of relationship with the father (RELFTH), involvement with the father (INVFTTH), quality of relationship with the mother (RELMTH), involvement with the mother (INVMTH), caregiver's highest grade completed (CGHGRC), and household income (HHDINC). Scatterplots for each variable revealed very little slope, but enough to account for some predictability of the dependent



variable (reading scores) with the particular independent variable. (See Appendix B for actual scatterplot representations.)

## MULTIVARIATE ANALYSES

### *Overall Sample Population*

An overall linear regression was computed including all fourteen independent variables with a level of significance of 95% (alpha of 0.05 or a p value of  $<0.05$ ).

Initially, only two variables, relationship with the father (RELFTH) and educational aspirations of the father (EDAFTH), showed significance (RELFTH  $p < 0.01$ ; EDAFTH  $p < 0.01$ ) (see Table 7). As anticipated, the relationship with the father (RELFTH) was positive and significant at the 0.01 level. For each unit increase in the strength of the relationship with the father, reading scores increased by 0.540, all else being equal. Conversely, there was a significant, yet negative relationship between reading scores and the educational aspirations of the father (EDAFTH). For every unit increase in EDAFTH, reading scores were predicted to decrease by 1.807, which contradicts my hypothesis.

San Diego served as the reference variable of region for the analysis. Before controlling for household income, three regions (Baltimore, North Carolina, and Chicago) showed a significant relationship with reading scores. Although the reason for the difference among these regions cannot be conclusively stated, it could be related to variance in severity of maltreatment history among them. When compared with San Diego's sample, reading scores are 9.477 lower in the North Carolina region. Likewise, the Chicago sample revealed reading scores 5.883 less than those in San Diego. Finally,

reading scores were 12.490 lower in the Baltimore sample than San Diego. Interestingly, the sample populations from these three regions had less involvement with Child Protective Services (CPS) than Seattle or San Diego. Potential interpretations will be discussed in the final chapter.

The predictor variables in this model explain 6.5% of the variation in reading scores. In this model, while comparing standardized regression coefficients ( $\beta$ s) of interval ratio variables, the relationship with the father showed the strongest effect on reading scores ( $\beta = 0.162$ ). Likewise, when comparing ordinal variables, the educational aspirations of the father had the strongest effect on reading scores ( $\beta = -0.128$ ). Comparing the dummy variables for each region, Baltimore had the strongest effect on ( $\beta = -0.326$ ).

As shown in Table 8, after controlling for household income (HHDINC), RELFTH, EDAFTH, and CGHGRC all showed significance for predicting reading scores (RELFTH  $p < 0.05$ , EDAFTH  $p < 0.05$ , CGHGRC  $p < 0.05$ ). Of the fourteen independent variables, only these three revealed significance in predicting reading scores. It is interesting to point out that two of the variables involved the father (RELFTH and EDAFTH). As predicted, an adolescent's perceived relationship with his/her father had a positive and significant effect on reading achievement scores at the 0.01 level. In Table 8, results for RELFTH indicate that a one unit increase in the adolescent's perceived relationship with the father results in a 0.146 increase in reading scores. Conversely, the variable, a father's educational aspirations for the child (EDAFTH), was negative and

significant ( $p < 0.01$ ). Inconsistent with my hypothesis, reading scores are predicted to decrease by 0.119 for every unit increase in EDAFTH, holding other variables constant. Finally, the caregiver's highest grade completed was negative and significant at the 0.05 level. Similarly, a unit change in CGHGRC results in a decrease ( $B = 0.109$ ) in reading scores.

After controlling for household income (see Table 8), there no longer appeared to be significance between Chicago and San Diego in terms of effect on reading scores. Chicago's sample population was largely lower income families, so this apparently had some sort of an influence on reading scores. This potential spurious relationship will be explored in greater detail in chapter six. Controlling for household income also slightly affected the strength of relationship with reading scores for both North Carolina ( $B = -9.862$ ) and Baltimore ( $B = -11.779$ ), revealing strong, negative correlations. Compared with the San Diego sample, North Carolina and Baltimore continued to show lower reading scores (although not quite as low as before controlling for household income).

For this model, the adjusted  $R^2$  is 0.056, indicating that the model explains 6% of the variation in reading scores could be explained by the predictor variables. While comparing standardized regression coefficients ( $\beta$ s) of interval ratio variables in this model, the relationship with the father showed the greatest effect on the dependent variable ( $\beta = 0.146$ ). The most important predictor among ordinal variables was caregivers highest grade completed ( $\beta = -0.109$ ). Comparing the dummy variables for

region, again, Baltimore had the strongest effect on predicting reading scores ( $\beta = -0.306$ ).

The remaining independent variables did not have a significant impact on reading scores. Therefore, my hypothesis ( $H_1$ ) regarding social capital as a predictor of reading scores is not supported by these predictors. Severity of maltreatment history and its effects on reading achievement ( $H_2$ ) had inconsistent findings.

For the eleven variables found without significance, the null hypothesis was accepted that measures of social capital are not significantly, positively correlated to adolescent reading achievement in this particular sample population. Since so few variables revealed a significant correlation, potential differences among regional sample populations were considered. Initially, comparative means were computed between the dependent variable, reading scores, and each region. The linear regression was calculated again on each individual region (see Table 9). Table 10 shows the mean reading scores compared by region.

#### *Regression by Region*

The linear regression was run again using all independent variables to test the correlation with reading scores apart from the combined sample population (see Table 9). The findings were quite different than those for the overall sample. The predictor variables indicating significance with reading scores also varied from region to region.

Regression on the variables in the Baltimore sample revealed four significant predictors. Relationship with the father (RELFTH) was significant and positive with

reading scores at the 0.01 level. For example, with every unit increase in RELFTH, reading scores increase 1.982. This predictor was the strongest of the interval ratio variables ( $\beta = 0.432$ ). Involvement with the father (INVFTH) was also significant ( $p \leq 0.01$ ), but negative. Contrary to my hypothesis, reading scores could be predicted to decrease by 2.275 points for every unit increase in INVFTH. The caregiver's highest grade completed (CGHGRC) was negative and significant at the 0.05 level. According to the model, for each level increase in CGHGRC, reading scores decrease 2.875. CGHGRC was also the strongest of all ordinal variables in this model ( $\beta = -0.260$ ). Finally, significance was found between the control variable, household income (HHDINC) and reading scores. The relationship is positive, suggesting that as household income increases, reading scores also increase by 1.703. For the Baltimore model, the adjusted  $R^2$  is 0.086, indicating that 8.6% of the variance in reading scores can be explained through the predictors.

Four variables were also found significantly related to reading scores in the Chicago sample. With the exception of the educational aspirations of the father, none of the variables were found significant to this point in the analysis. The educational expectations of the parent(s) for the child (EDUEXP) was found significant at the 0.05 level and negative as a predictor of reading scores ( $B = -5.294$ ). The index of neighborhood collective efficacy (NBHCLE) was found to have a significant ( $p \leq 0.01$ ), positive relationship with reading scores. Supporting the hypothesis, a unit increase in NBHCLE, results in a 1.076 increase in reading scores in this model. The child's recent

residential moves (CHDMVE) and the educational aspirations of the father (EDAFTH) were both found negative and significant at the 0.05 level. Reading scores decrease 5.289 points for every unit increase in CHDMVE and decline 5.944 for each unit increase of EDAFTH. The negative effect on reading scores with increasing child residential moves supports the hypothesis as an indicator of potential social capital through residential stability. Considering this relationship along with the one between neighborhood collective efficacy and reading scores, the effects of neighborhoods as a potential source of social capital seem to be most visible in the Chicago sample. Comparing the standardized regression coefficients for the interval ratio variables in the Chicago model, the number of residential moves (CHDMVE) had the strongest relationship with reading scores ( $\beta = -0.454$ ). Among the ordinal variables, EDAFTH was the strongest predictor of reading scores ( $\beta = -0.333$ ). In the Chicago sample, the adjusted  $R^2$  reveals that 5.0% of the variance reading scores could be explained by the model.

In the North Carolina sample, three variables had significant effects on reading scores. Neighborhood stability (NBHSTA) was significant at the 0.05 level and positive. In line with the hypothesis, for every unit increase in NBHSTA, reading scores increase by 5.623, marking the strongest relationship with the dependent variable of all the ordinal level variables in the model. Time in the neighborhood (NBHTME) and relationship with mother (RELMTH) are both significant at the 0.05 level and negative. As NBHTME increases by a unit, reading scores decline by 4.951. Similarly, for each unit increase in RELMTH, reading scores decrease by 1.206. When the standardized regression

coefficients are compared, RELMTH is the strongest interval ratio variable in the North Carolina model. An adjusted  $R^2$  for this model accounts for 17.5% of the variation in reading scores.

Interestingly, the San Diego and Seattle samples yielded few predictors for reading scores. In fact, none of the independent variables in the San Diego model showed significance. In the Seattle model, one variable, educational expectations of parents (EDUEXP) was significant and positive at the 0.05 level. For every unit increase in EDUEXP, reading scores can be expected to increase by 2.875 in the Seattle sample. Both San Diego and Seattle had negative adjusted  $R^2$  percentages (San Diego = -0.085 and Seattle = -0.026%) suggesting that the predictors in the model do not explain variations in reading scores for these particular sample populations.

#### COMPARING DEPENDENT VARIABLE AMONG REGIONS

Comparing the mean reading scores by region yielded interesting observations (see Table 10). Surprisingly, the San Diego sample, identified as the highest risk and with the greatest past involvement with CPS overall, had the highest mean reading score (see Table 10). In fact, San Diego's mean score of 96.4115 was over eight points higher than the lowest mean score from the Baltimore group of 88.3901. The lowest risk sample population, North Carolina, had mean reading scores that fell in the middle of the group at 91.4024.

## SUMMARY

The results of each statistical analysis were presented and explained in this chapter. Pearson's correlation was run on all independent variables to determine strong correlations that might too closely reveal the effects of another predictor in the model. With the exception of a couple of changes in variables that were in danger of skewing the data, most of the variables were deemed to not be so highly correlated that they couldn't remain in the same model. Scatterplots were created to visualize the relationship between each interval ratio predictor and the dependent variable, determining if the independent variables are useful in predicting reading scores. Most revealed a very slight slope, yet this appeared to be enough to run a linear regression.

The OLS (linear) regression was run on the overall sample population, with and without the inclusion of the control variable, household income. Any significance was highlighted and discussed in terms of the hypotheses. The regression was run again for each region separately, in order to determine any possible differences and to evaluate the potential effects of severity of maltreatment history. Finally, mean reading scores for each region were compared. Possible implications for the results discussed in this chapter will be covered in the conclusions chapter following.



## CHAPTER VI

### CONCLUSION

#### OVERVIEW AND PURPOSE OF THE STUDY

This chapter reviews the results of the study and discusses any implications of the analysis. The hypotheses are evaluated in light of the statistical findings. Potential explanations are explored, as well as any additional limitations discovered. Finally, recommendations for future research will be promoted.

The purpose of this study was to examine the possible connection between the idea of social capital, especially as defined by James Coleman, to potential academic achievement in children identified as at-risk for maltreatment. This study also considered level of risk (by computing the regression by each region separately) as a potential detriment to social capital and, thus, a negative influence on academic achievement.

Of the fourteen variables measuring social capital, only three showed significance as predictors of reading scores in the overall sample. Of these, only one, the child's relationship with the father, was related positively to reading scores. However, when considering the regional sample populations separately, findings differed significantly among regions. Since each region utilized a different source and method for data collection, they each varied considerably in terms of maltreatment history and risk. For instance, the San Diego sample, taken from a group in which temporary familial

disruption had occurred before the child turned four, had the most history with Child Protective Services (CPS) and confirmed cases of maltreatment. In contrast, the North Carolina sample might be considered the lowest risk sample since it was retrieved from clinics throughout the state serving young, single mothers, but who may not have had any past involvement with CPS.

## DISCUSSION OF FINDINGS

Overall, the statistical analyses run with both the entire sample population and separately by region yielded inconsistent results and a general lack of significance between the independent and dependent variables. It appears that the vast differences in how the sample populations were recruited and consequentially, the characteristics of each sample population could potentially skew the research. Future research might consider focusing on one particular sample population or comparing one regional sample with another. Since the severity of maltreatment history as a whole varies among the regions, consideration should be placed on how level of risk for maltreatment and/or family demographics play into measures of social capital and potential academic outcomes.

Of the three variables showing significant effects on the dependent variable, reading scores, when the regression for the first model was computed for the population as a whole, only one variable showed some support for the hypothesis that increased levels of social capital will have a positive effect on reading achievement ( $H_1$ ). Bourdieu's assertion that social capital is composed of that human capital transferred

through important relationships is noted through the significance of these three variables on reading scores: caregiver's highest grade completed, educational aspirations of the father, and the relationship with the father. Using Bourdieu's model, the human capital (caregiver's education and educational aspirations for the child) of the caregiver would be transferred to the child through the quality of the relationship with the caregiver.

However, only the relationship with the father showed a positive correlation with reading scores. It is possible that the questions included in the index measuring the relationship with the father could reveal the child's hope for the relationship, rather than the reality of that relationship. However, if the father only has visitation rights or partial custody, the child may not benefit from any educational aspirations. Abuse and neglect could also deflect any potential benefits of the relationship, even creating fear rather than capacity to succeed academically. In their study of children in abusive homes, McCloskey, Figueredo, and Koss (1995) found that familial support and warmth did not buffer child maltreatment. Therefore, it could be possible for a child in the current study to report a high relationship with parent(s), yet still suffer at the hands of this caregiver. The maltreatment or threat of maltreatment could result in an inability to concentrate, distractibility, and sleeplessness contributing to lower test scores.

Issues in data collection and coding could also affect the outcomes. The shift in data collection sourced primarily from caregivers to that of heavily involving the child could have a notable effect on the data. Age 12 was the first point during the course of the longitudinal study in which the child him/herself took an active role in data

contribution. Many of the surveys administered and used in this particular analysis involved the child's feedback directly. Children may be unaccustomed to the types of questions asked and/or the length of the instruments. Children from high risk environments may be acutely aware and suspecting of institutional agendas. Since participants were just entering early adolescence at the time of the data collection, it may have been difficult for them to understand and trust the informed consent. They may fear that their responses could incriminate their families and result in familial disruption. Consequently, the data may be particularly skewed in favor/defense of the parents portraying them in an overly positive light.

The significant difference between mean reading scores for Baltimore (88.3901) and San Diego (96.4115) is worth exploring. Chicago and Baltimore samples are considered high risk, but with low incidence of out-of-home placements by Child Protective Services (CPS). San Diego and Seattle have higher rates of involvement with CPS, yet have the highest mean reading scores of the five regions. Possible explanations could include the increased access to services for children involved with the state in some capacity. Perhaps, a label of "at-risk," opens up more opportunities for educational support from the community and schools. It would be helpful to assess the samples by severity rates based on history with CPS.

Another possibility for the disparity in reading scores could have something to do with the control variable, household income. Baltimore was the only region revealing a significant and positive relationship between household income and reading scores.

Perhaps further research could explore a possible spurious relationship and more extensively measure the effects of income on academic achievement in this area. Perhaps a comparison of the resources available through the public school systems in San Diego and Baltimore would reveal inconsistencies that lead to these substantial differences in reading scores.

For children with a history of confirmed maltreatment and child welfare involvement (especially in the San Diego and Seattle samples) risk of recurrence has been found to decrease with time. DePanfilis and Zuravin (1999) found risk greatest the first 30 days after CPS initiated involvement, but that the hazard rate declined by 50% during this time. The authors assert that CPS intervention and surveillance may inhibit further maltreatment. In these most severe cases in which a child was at some point removed from the home (in the case of San Diego) or have had open CPS cases, children become more privy to resources, outside support, and social capital. Parents having to work through reunification plans are held more accountable to ensure that the child receives adequate support. They are likely exposed to more parenting education and/or resources that could improve outcomes. Notably, none of the measures of social capital revealed significant predictability of reading scores in the San Diego sample. In the Seattle sample, only educational expectations of the caregiver for the child were found to affect reading scores positively, supporting the hypothesis. Further research could explore what causal factors might be at work in these particular samples.

In contrast to the San Diego sample, Baltimore's sample is also considered high risk, but there is little history of the child being removed from the home. Thus, this sample of caregivers has less intense involvement with CPS, which likely includes less access to education and resources. Four indicators of social capital were significantly related to reading scores in this sample. Results were somewhat contradictory with the relationship with the father having a positive impact on reading scores, but involvement with the father revealing a negative correlation with reading scores. The caregiver's highest grade completed was also negative and significant in relation to the dependent variable. The control variable, household income had a significant and positive relationship with reading scores. In this sample, only the relationship with the father supported the hypothesis for social capital.

North Carolina's sample with reading scores in the middle of the group may allude to limited familial educational resources, but low-risk of CPS involvement hindering outside support. In this sample, potential support from the neighborhood showed significance, although conflicted, on reading scores. The stability of the neighborhood (measured by how long people tend to stay) was positively correlated (supporting the hypothesis), while the child's time in the neighborhood was negatively correlated, suggesting that the environment may have a greater influence than how long the child has lived in the area. The child's perceived relationship with the mother was found significant, yet negative. Since much of this population was retrieved from clinics

and targeted young, single mothers, the absence of a father figure, and the subsequent stress placed on the single mother and household could be more pronounced here.

The Chicago sample also revealed four significant variables in terms of their impact on reading scores. However, only two variables supported the hypothesis: neighborhood collective efficacy and number of child residential moves in the past five years. This was the only point in the study in which two variables measuring the potential of neighborhoods as a source of social capital revealed significance. Additional insight into the residential demographics of the Chicago sample might offer insight into the significance of these particular indicators on reading scores. The remaining findings were related negatively, not supporting the hypothesis. These variables included the educational aspirations of the father, the number of recent residential moves, and educational expectations of the parent.

#### POSSIBLE LIMITATIONS

Caregiver's highest grade completed (CGHGRC) is difficult to interpret since it is unclear which caregiver (custodial mother or father) completed the instrument. It is interesting that when this variable is significant in the study, it is negative. It could be found that another variable is intervening. Otherwise, this possession of human capital does not increase reading achievement scores for this particular sample population.

The context of the relationship with the parent(s) is important to consider. The children in the sample may interpret "father" and "mother" differently than current custodial parents. For example, they may answer the questions referring to biological

parents, yet currently live with other adults. Involvement with parents/caregivers could actually be detrimental if abuse or neglect is part of the relationship. Families could also be enmeshed and not value education, though time spent together is high. The educational aspirations of the parents may be high, yet lead to lower test scores if the context of setting high expectations is within a forceful, controlling relationship.

Combining and testing so many variables at one time to measure social capital, may have hidden the actual influence it had on reading scores. Perhaps other instruments administered by LONGSCAN would more adequately measure social capital. In addition, reassessing the questions within the index variables may more accurately portray the amount of social capital relevant to reading scores. It is also important to consider that a general measure of social capital may not be useful as a predictor of something as specific as reading scores, and more specific forms of social capital should be used (Furstenberg and Hughes 1995).

#### DIRECTIONS FOR FUTURE RESEARCH

Future research might include a qualitative component clearing up any inconsistencies in youth reporting and potential rationales for the quantitative findings. The extensive data available from LONGSCAN yields the possibility of exploring additional ways of measuring social capital. Furstenberg and Hughes (1995) evaluated social capital as a predictor of youth success, such as feedback from teachers and other school reports. They found that considering the various aspects of social capital separately may be more beneficial in linking relations to different outcomes. Therefore,



increased correlations may be found when certain aspects of social capital are compared with the dependent variable than with others. In this study, more social capital involving education may result in a higher correlation with reading scores than measures of social capital less related to academics. Similar to the current study, Furstenberg and Hughes were limited to data collected through secondary analysis to measure social capital. They noted that social capital is difficult to precisely measure, especially when using existing data. The intentionality of measuring social capital during data collection might alleviate this issue, particularly in a mixed methods model.

Another potential option for using social capital as a predictor of educational outcomes is to measure it as a family, rather than just with the child. Looking at the family as an institutional unit, this expanded measure of social capital might reveal not only what the child possesses individually, but the relationships and resources available to the family as a whole (Parcel and Menaghan 1993). Family social capital has the potential to benefit the child as much as what s/he individually possesses and may be overlooked in traditional measures of social capital. This current study cannot measure any benefits the child may gain through family social capital since there is limited feedback from the caregivers regarding family dynamics and measures of social capital.

Based on the variance between results of the overall sample population and those of the individual regions, future research using this data should consider studying the unique sub-samples separately. Another option would be to run a comparison of two different regions. The sample could also be separated according the type of abuse and/or

neglect suffered. Barber, Olsen, and Shagle (1994) suggest the need for differentiation in the type of parental control and consequential internal or external problems for the child. Perhaps, separating physical abuse, sexual abuse, neglect, and emotional abuse would produce new outcomes on reading scores. Considering all five regions and backgrounds together as one sample set seems to merge too much diversion into one sample population. Capturing accurate outcomes is challenging with such diversity in risk and maltreatment history.

Additional studies with this at-risk population could focus on prevention programs. A lack of resources and personnel at CPS offices throughout the nation prevent adequate intervention, prevention, and family preservation with even the highest risk families. Very few resources are available for lower risk families in danger of demise without preventative services and resources. Waldfogel (2009) asserts that increased attention and funding are needed for this group in order to more effectively prevent child maltreatment. Outreach could include parenting classes, home-visits, and intervention for domestic abuse, substance abuse, and mental health. Providing support to families experiencing stressors that could lead to child maltreatment is critical.

Future research should focus on children at-risk for maltreatment and/or with past substantiated reports of maltreatment, yet remaining in the home. Research in this area will help guide preventative efforts and family preservation in the best interest of the child. McCroskey and Meezan (1998) recommend the societal adoption of family support and preservation services offered to at-risk families and those facing common familial

stressors. They suggest practical resources such as parenting classes, health care and wellness access, abuse prevention, literacy education, and school readiness programs.

## SUMMARY

Children remaining in the home, but at considerable risk for maltreatment, represent a population that should be the focus of future research. Exploring educational outcomes for this group could have implications for various institutions including educational, familial, child welfare, and even the criminal justice system. This study considered the influence of social capital and level of risk on potential academic outcomes. Although the results were inconsistent and did not always support the hypotheses, potential explanations were explored that prevent the complete abandonment of the hypotheses. Perhaps, future research exploring the premises using alternative measures of social capital; analyzing the regional samples, rather than the combined sample; or adding a qualitative element to the study could better evaluate the amount of social capital and its effects on academic achievement for this population.

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APPENDIX A  
IRB APPROVAL LETTER



**Institutional Review Board**  
Office of Research and Sponsored Programs  
P.O. Box 425619, Denton, TX 76204-5619  
940-898-3378 FAX 940-898-4416  
e-mail: IRB@twu.edu

February 14, 2011

Ms. Merryl Barker  
Department of Sociology & Social Work

Dear Ms. Barker:

*Re: Outcomes for Foster Children (Protocol #: 16491)*

The above referenced study has been reviewed by the TWU Institutional Review Board (IRB) and was determined to be exempt from further review.

If applicable, agency approval letters must be submitted to the IRB upon receipt PRIOR to any data collection at that agency. Because a signed consent form is not required for exempt studies, the filing of signatures of participants with the TWU IRB is not necessary.

Any modifications to this study must be submitted for review to the IRB using the Modification Request Form. Additionally, the IRB must be notified immediately of any unanticipated incidents. If you have any questions, please contact the TWU IRB.

Sincerely,

Dr. Kathy DeOrnellas, Chair  
Institutional Review Board - Denton

cc. Dr. James Williams, Department of Sociology & Social Work  
Dr. Lisa Zottarelli, Department of Sociology & Social Work  
Graduate School

TWU INSTITUTIONAL REVIEW BOARD (IRB)  
MODIFICATION REQUEST FORM

Complete this form when you would like to request a change on an approved study. This change could be a change in the research team, data collection sites, protocol (e.g., compensation, study procedures, etc.), and/or the informed consent. Submit this signed form along with copies of any new or modified materials you describe below to the IRB. NOTE: You may not implement any changes to an IRB-approved study until your Modification Request has been approved.

PRINCIPAL INVESTIGATOR: Merryl Barker

DATE APPROVED BY IRB (most recent): 2-14-2011

TITLE OF STUDY: The Accessibility and Subsequent Influence of Social Capital on Academic Ability in Children Identified as At-Risk and/or Confirmed Victims of Maltreatment in the United States

Provide a detailed description of the modification(s) requested:

Change of title. Subjects are not all foster children as originally identified, although it is the same data set.

Provide a list of any new or modified documents materials and attach these items to this form:

Principal Investigator Assurance: I certify that the revised information provided for this project is correct and that no other procedures or forms will be used. I confirm that no changes will be implemented until I receive written approval for the changes from the TWU IRB.

Merryl Barker  
Signature of Principal Investigator

5-26-11  
Date

APPROVED:

Ronda R. Buckley  
Signature of IRB Chair / Co-Chair

5/27/11  
Date

APPENDIX B  
SCATTERPLOTS FOR INTERVAL RATIO INDEPENDENT VARIABLES AND THE  
DEPENDENT VARIABLE



Figure 1. Reading Scores (RDGSCR) and Emotional Support (EMOSUP)

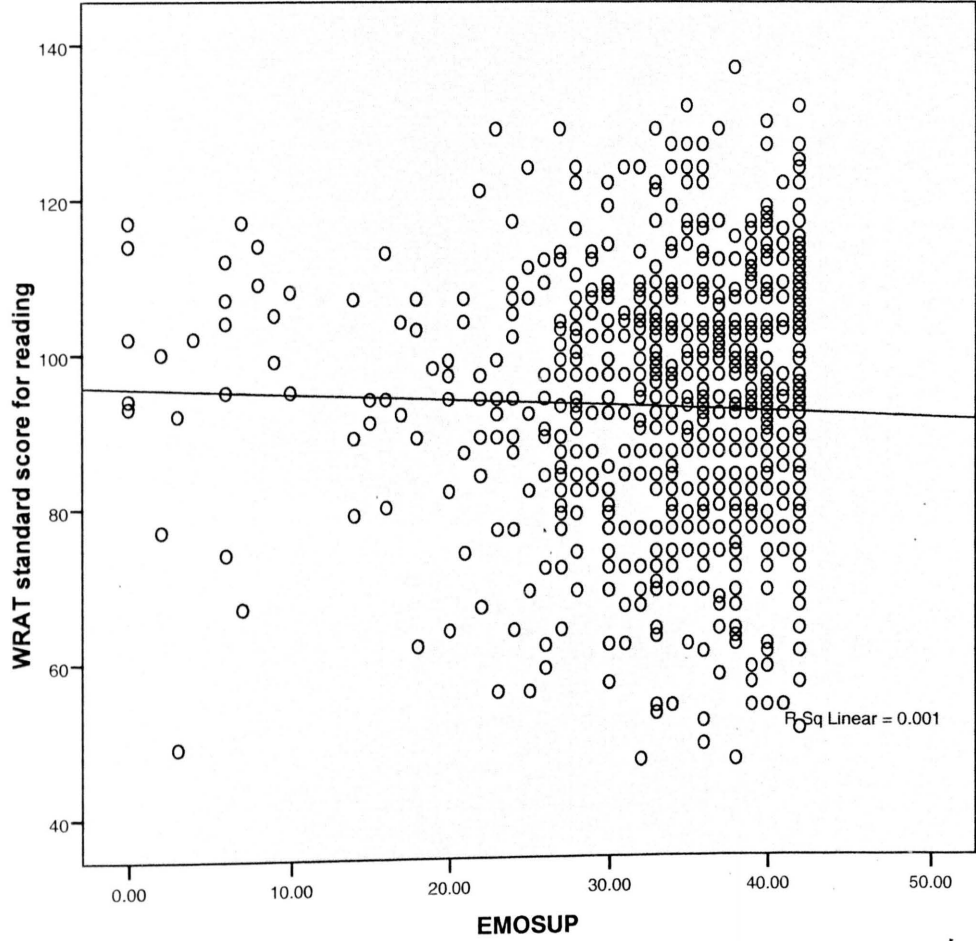


Figure 2. Reading Scores (RDGSCR) and Educational Support (EMOSUP)

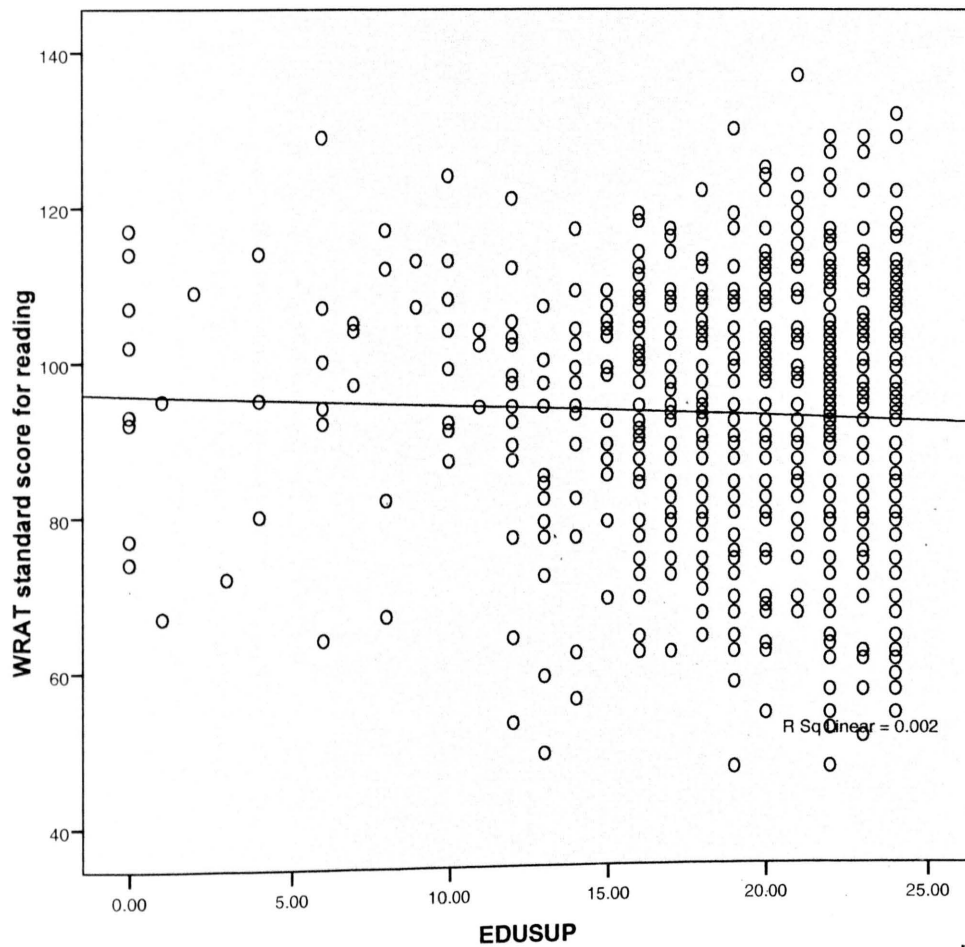


Figure 3. Reading Scores (RDGSCR) and Child's Residential Moves (CHDMVE)

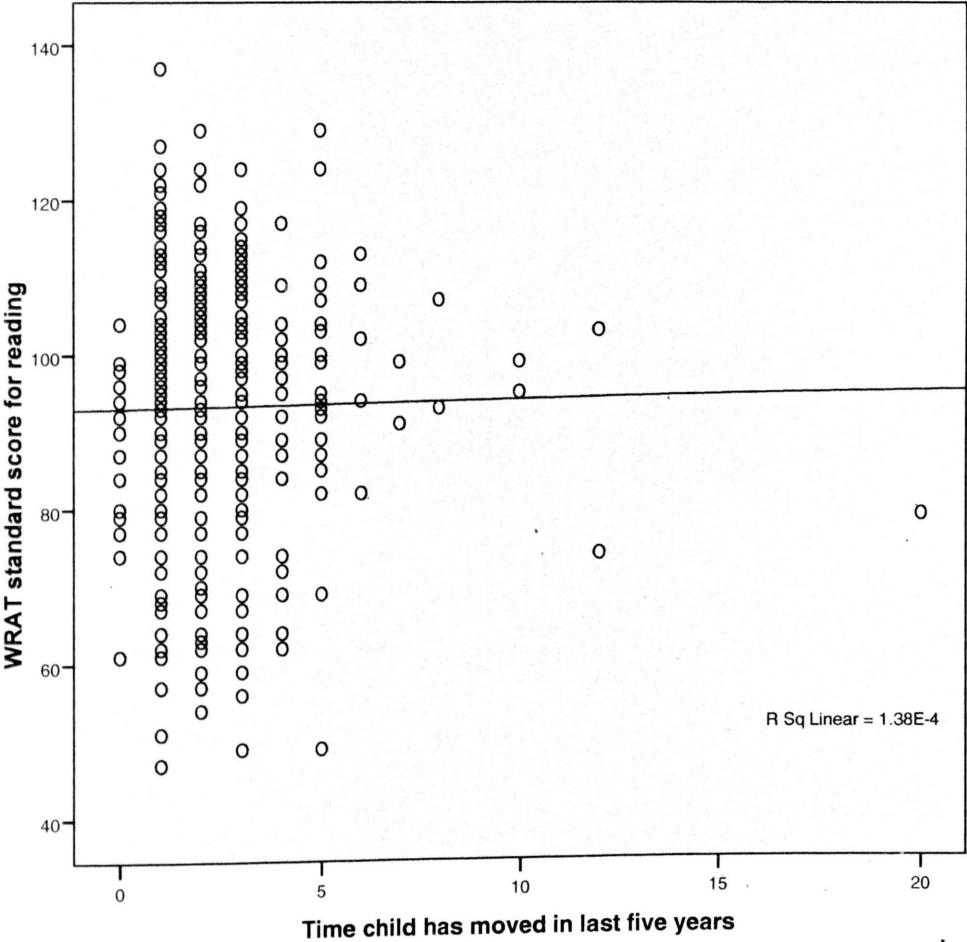


Figure 4. Reading Scores (RDGSCR) and Child's Residential Moves (CHDMVE)

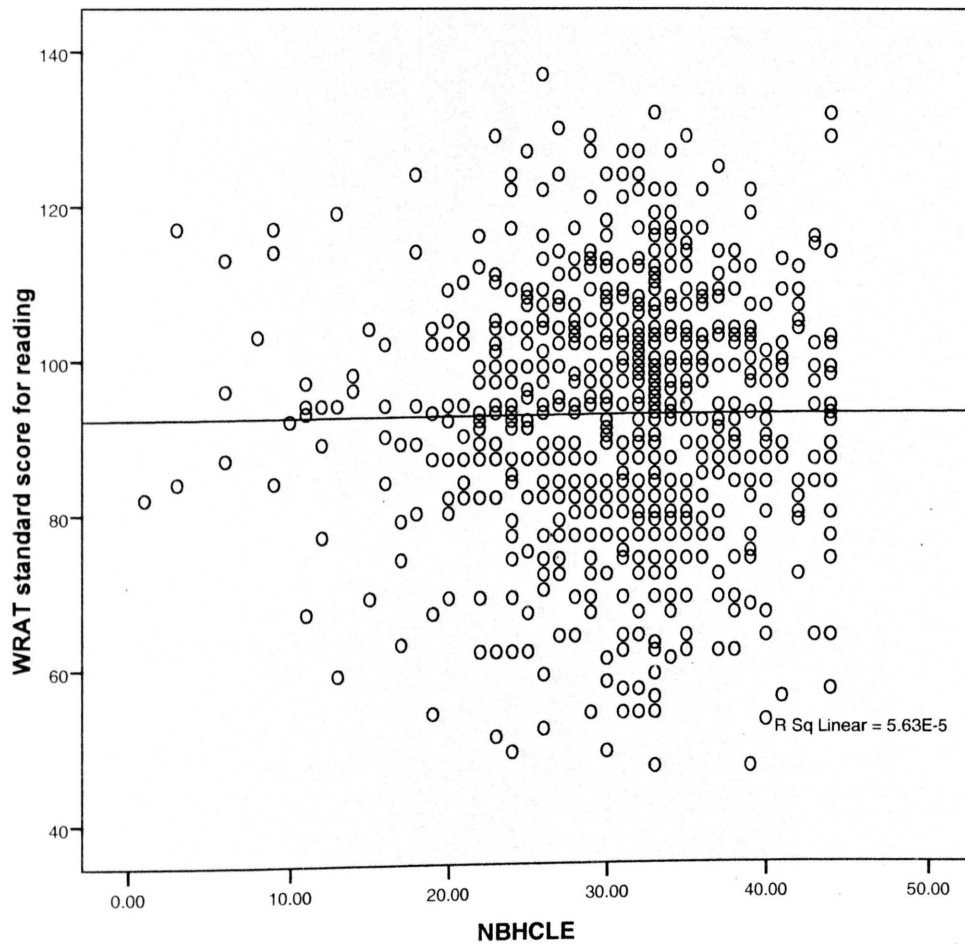


Figure 5. Reading Scores (RDGSCR) and Neighborhood Collective Efficacy (NBHCLE)

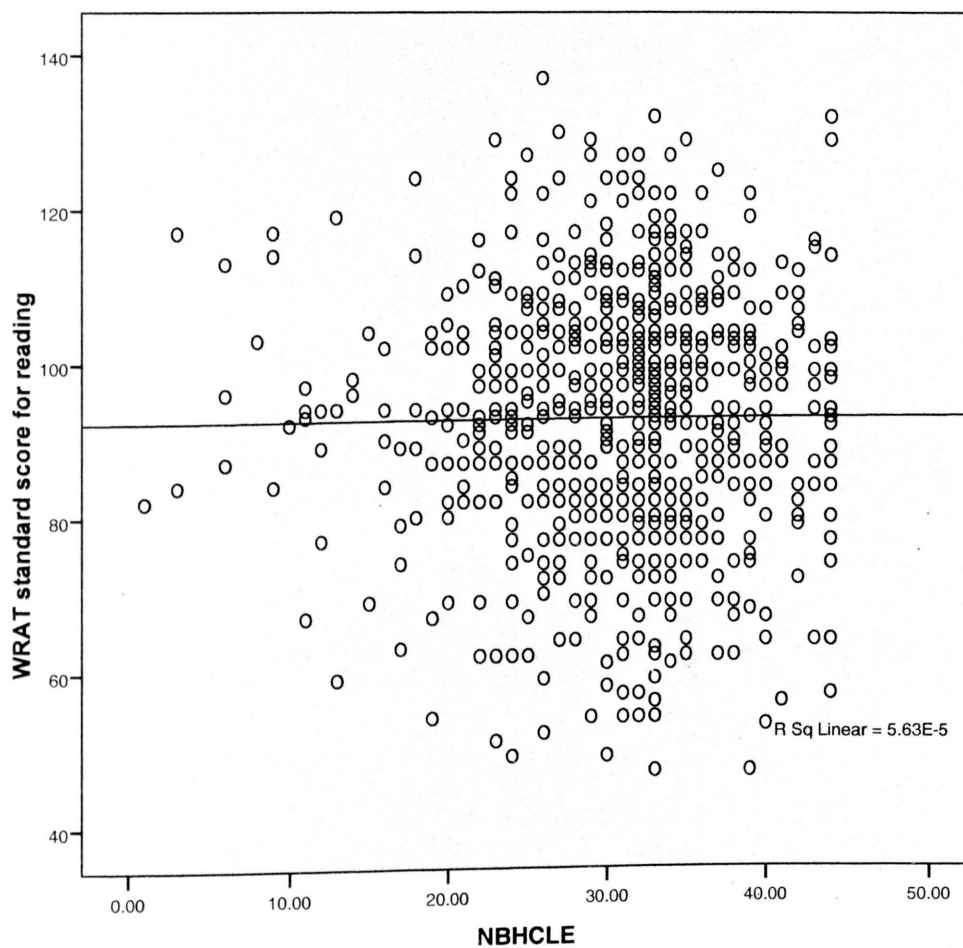


Figure 6. Reading Scores (RDGSCR) and Relationship with Father (RELFTH)

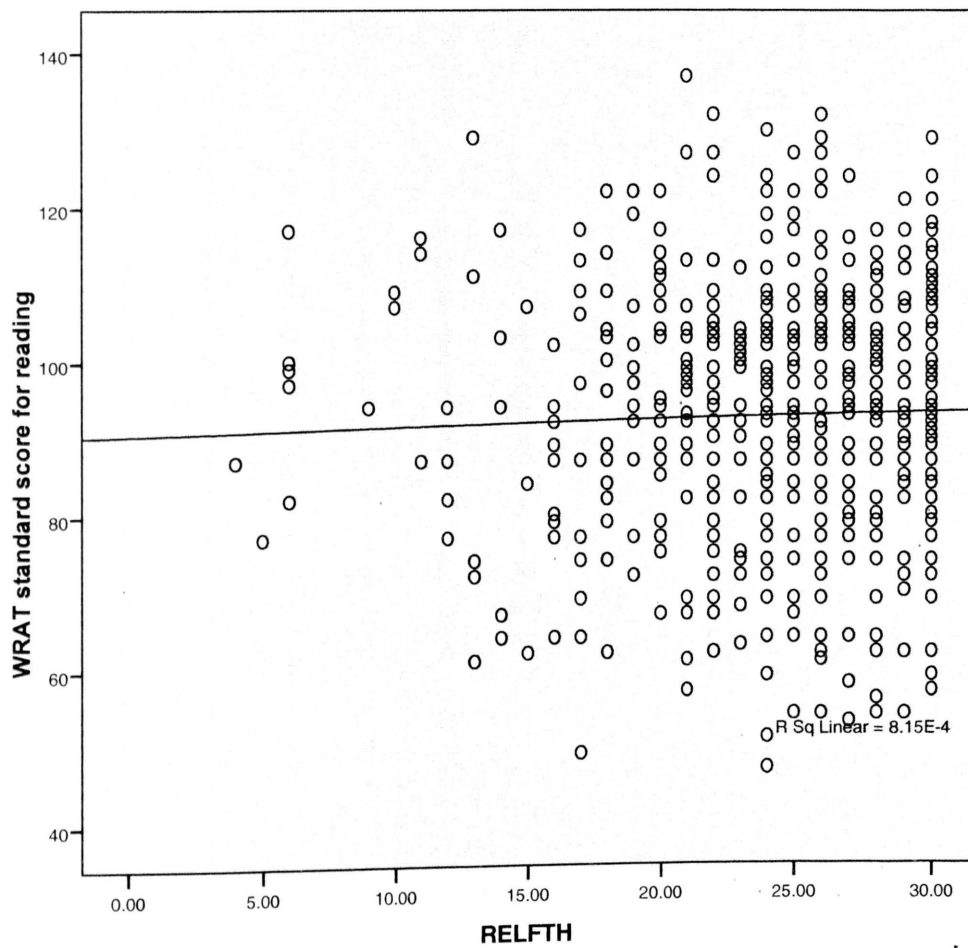


Figure 7. Reading Scores (RDGSCR) and Involvement with Father (INVFTH)

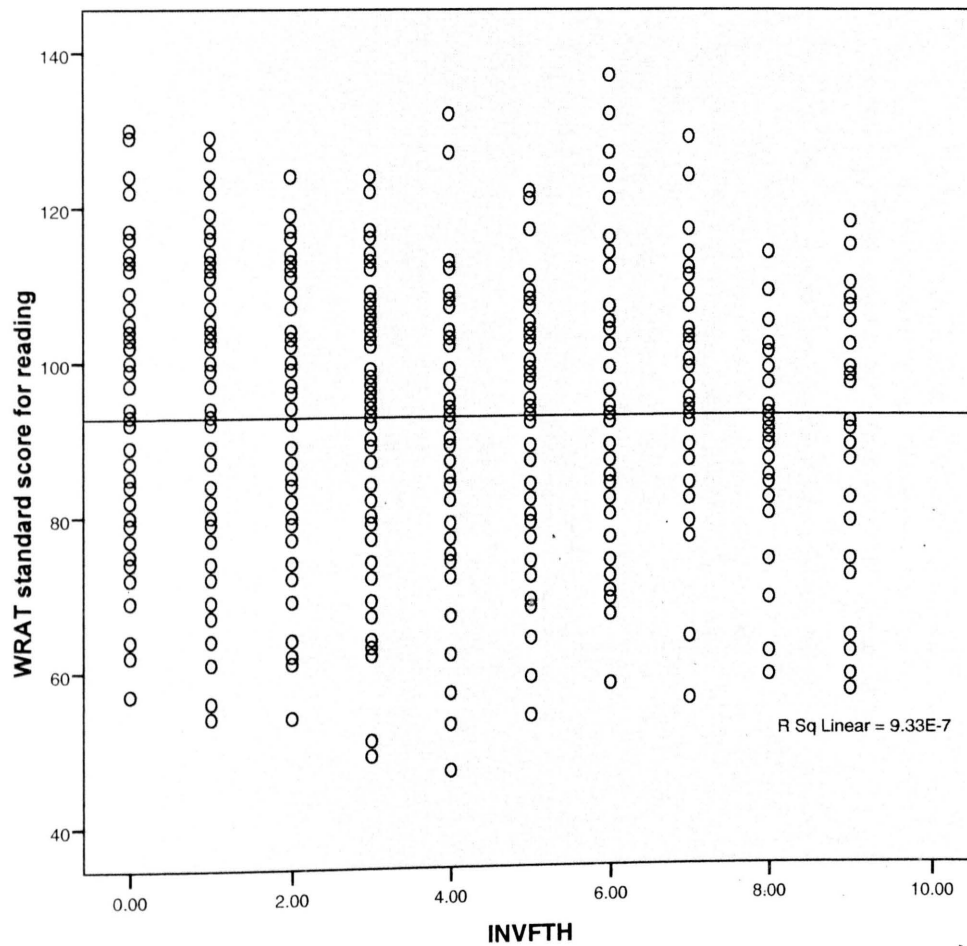


Figure 8. Reading Scores (RDGSCR) and Relationship with Mother (RELMTH)

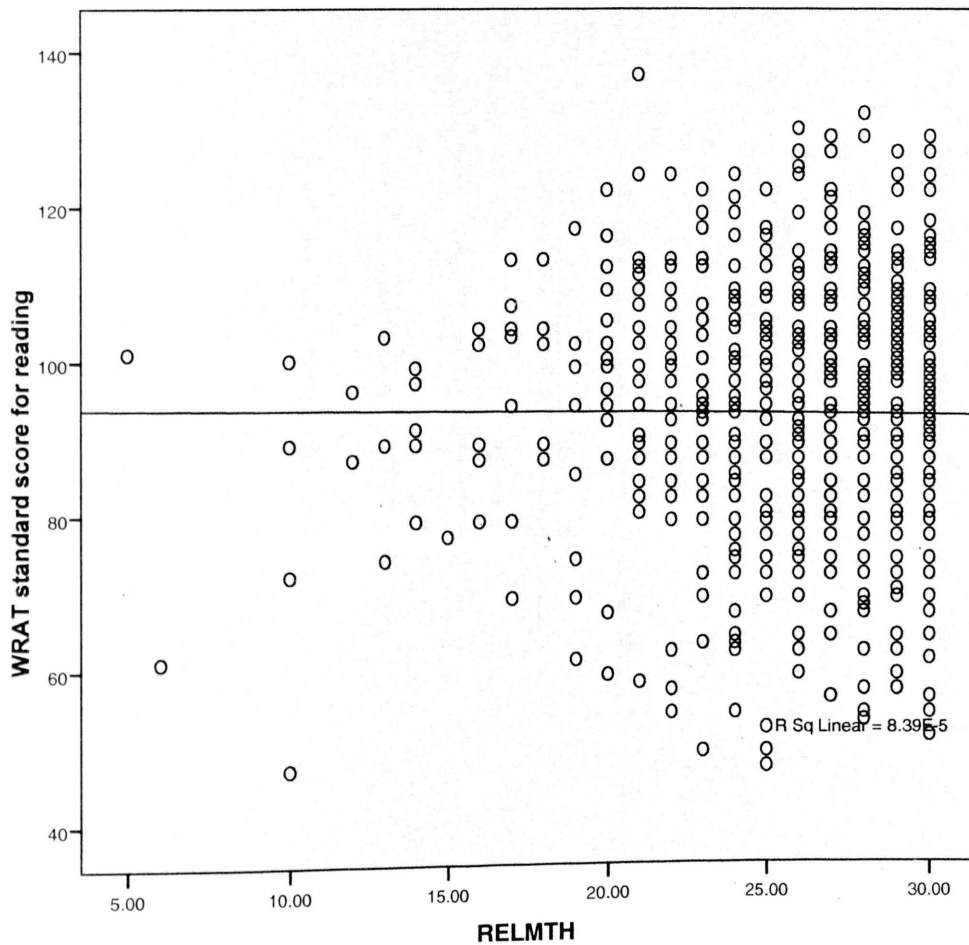
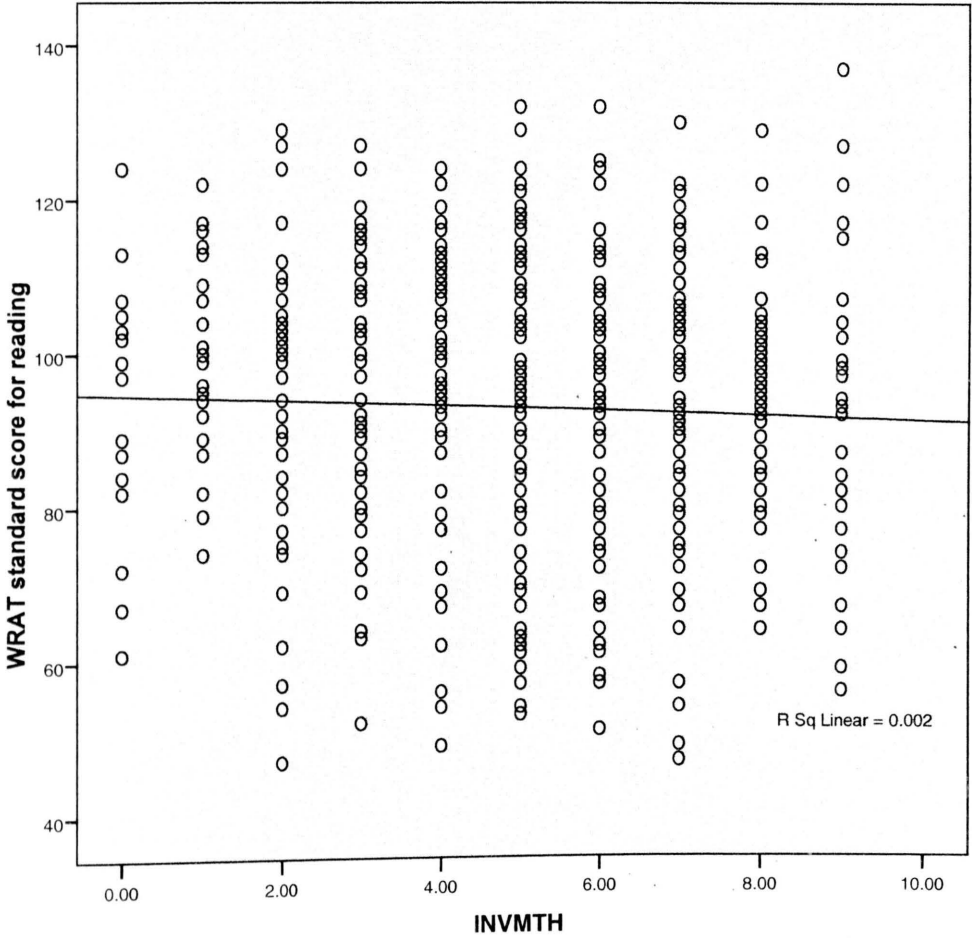




Figure 9. Reading Scores (RDGSCR) and Involvement with Mother (INVMTH)



APPENDIX C  
DATA SET TABLES

Table 1. Description of Dependent and Independent Variables

Variable Name	Type	Label	Description
Dependent Variable RDGSCR	Reading Score on the WRAT3	Continuous (interval ratio)	Child's standard score on the reading portion of the Wide Range Achievement Test-3.
Independent Variables EMOSUP	Continuous (interval ratio)	Emotional Support	Index composed of the sum of categorical responses to 14 questions measuring child's perception of caregiver's support.
EDUSUP	Continuous (interval ratio)	Educational Support	Index composed of the sum of categorical responses to 8 questions measuring child's perception of caregiver's support.
EDUEXP	Categorical (ordinal)	Caregiver's educational expectations	Categorical measure of caregiver's educational expectation (level of schooling completed) for child.
NBHTME	Categorical (ordinal)	Child's time in current neighborhood.	Categorical response to question: How long has child lived in this neighborhood since the last time s/he moved in?
CHDMVE	Continuous (interval ratio)	Child's residential moves in last five years.	Response to the number of times the child has moved in the past five years.
NBHCLE	Continuous (interval ratio)	Neighborhood Collective Efficacy	Index composed of the sum of categorical responses to 11 questions measuring cohesion and support within the neighborhood.
NBHSTA	Categorical (ordinal)	Neighborhood Stability	Response to question measuring whether, or not, people stay in the neighborhood long.
RELFTH	Continuous (interval-ratio)	Relationship with Father	Index composed of the sum of categorical responses to 6 questions measuring the quality of child's relationship with father from the child's perspective.

Table 1 (continued)

Variable Name	Label	Type	Description
INVFTH	Continuous (interval-ratio)	<b>Father's Involvement</b>	Index composed of the sum of dichotomous responses to 9 questions measuring the level of recent involvement by the father as perceived by the child.
EDAFTH	<b>Father's Educational Aspirations for Child</b>	Categorical (ordinal)	Response to question <b>measuring the father's educational aspirations</b> (college) for the child.
RELMTH	Relationship with Mother	Continuous (interval ratio)	Index composed of the sum of categorical responses to 6 questions measuring the quality of <b>child's relationship with mother from the child's perspective</b> .
INVMTH	<b>Mother's Involvement</b>	Continuous (interval ratio)	Index composed of the sum of dichotomous responses to 9 questions measuring the level of recent involvement by the mother as perceived by the child.
EDAMTH	<b>Mother's Educational Aspirations for the Child</b>	Categorical (ordinal)	Response to question <b>measuring the mother's educational aspirations</b> (college) for the child.
CGHGRC	<b>Caregiver's Highest Grade Completed</b>	Categorical (ordinal)	Categorical response to the question: What is the highest grade in school or college that you have passed or completed?
Control Variables HHDINC	Household Income	Categorical (ordinal)	Categorical response to the question: About how much <b>money does child's household take</b> in each week, month, or year?
REGION	<b>Child's Region</b>	Categorical (nominal)	<b>Identification of the child's region</b> among the five from which the sample was gathered.

Table 2. Frequency Distributions

Variable	Category	Frequency (N)	Valid %
<i>Dependent Variable</i>			
RDGSCR	120 & up: superior – very superior	78	9.1
Reading Score	90 – 119: average – high average	272	31.8
	70 – 89: borderline – low average	473	55.3
	69 & below: deficient	32	3.7
	Total	855	100.0
<i>Independent Variables</i>			
EMOSUP	0 – 12	25	2.8
Emotional Support	14 – 23	42	4.8
	24 – 33	224	25.4
	34 – 42	591	67.0
	Total	882	100.0
EDUSUP	0 – 6	21	2.4
Educational Support	7 – 12	42	4.8
	13 – 18	210	23.8
	19 – 24	607	69.0
	Total	880	100.0
EDUEXP	High school grad or less	301	32.1
Educational Expectations	Community college or vocational school	85	9.0
	Four-year college	408	43.5
	Grad or professional school	145	15.4
	Total	939	100.0
NBHTME	< 1 year	200	21.1
Time in Current Neighborhood	1 – 2 years	189	20.0
	3 – 5 years	218	23.0
	>= 5 years	339	35.8
	Total	946	100.0
CHDMVE	0 – 2	442	73.8
Number of Child's Residential Moves in 5 Years	3 – 5	140	23.4
	6 – 8	12	2.0
	10 – 20	5	0.8
	Total	599	100.0
NBHCLE	1 – 14	24	2.5
Neighborhood Collective Efficacy	15 – 24	128	13.5
	25 – 34	548	58.0
	35 – 44	246	26.0
	Total	946	100.0

Table 2 (continued)

Variable	Category	Frequency (N)	Valid %
NBHSTA	Strongly disagree	258	27.8
Neighborhood Stability	Disagree	501	53.9
	Agree	136	14.6
	Strongly agree	34	3.7
	Total	929	100.0
RELFTH	4 – 12	17	2.5
Quality of Relationship with Father	13 – 18	61	9.0
	19 – 24	211	31.0
	25 – 30	392	57.5
	Total	681	100.0
INVFTH	0 – 2	234	34.3
Involvement with Father	3 – 5	285	41.7
	6 – 7	108	15.8
	8 – 9	56	8.2
	Total	683	100.0
EDAFTH	not disappointed at all/not very disappointed	64	9.4
Father's Educational Aspirations	a little disappointed	81	12.0
	somewhat disappointed	147	21.7
	really disappointed	386	56.9
	Total	678	100.0
RELMTH	5 – 13	13	1.5
Quality of Relationship with Mother	14 – 19	35	4.0
	20 – 25	262	30.5
	26 – 30	550	64.0
	Total	860	100.0
INVMTH	0 – 2	115	13.3
Involvement with Mother	3 – 5	364	42.3
	6 – 7	259	30.1
	8 – 9	123	14.3
	Total	861	100.0

Table 2 (continued)

Variable	Category	Frequency (N)	Valid %
EDAMTH	not disappointed at all/not very disappointed	49	5.8
Mother's Educational Aspirations	a little disappointed	120	14.1
	somewhat disappointed	181	21.3
	really disappointed	499	58.8
	Total	849	100.0
CGHGRC	less than high school graduation: 0 - 11	284	29.8
Caregiver's Highest Grade Completed	high school graduation: 12	316	33.2
	college: 13-16	333	34.9
	graduate or prof: 17-20	20	2.1
	Total	953	100.0
<i>Control Variables</i>			
HHDINC	<\$5000 – 14,999	262	28.8
Household Income	\$15,000 – 29,999	304	33.4
	\$30,000 – 44,999	174	19.2
	≥\$45,000 – on	169	18.6
	Total	909	100.0
REGION	EA: East (Baltimore)	185	19.4
	MW: Midwest (Chicago)	132	13.8
	NW: Northwest (Seattle)	176	18.5
	SO: South (North Carolina)	164	17.2
	SW: Southwest (San Diego)	226	23.7
	Unknown	71	7.4
	Total	954	100.0

Table 3. Descriptive Statistics of Variables

Variable	N	Minimum	Maximum	Mean (Median)	Std. Deviation
Dependent Variable					
RDGSCR Reading Score	855	47	137	92.78	15.897
Independent Variables					
EMOSUP Emotional Support	882	0	42	34.5238	7.75270
EDUSUP Educational Support	880	0	24	19.5523	4.44325
EDUEXP Educational Expectations	939	1	7	5.40	1.144
NBHTME Time in Neighborhood	946	0	3	1.74	1.156
CHDMVE Number of Child Moves in 5 Years	599	0	20	2.03	1.687
NBHCLE Neighborhood Collective Efficacy	946	1.00	44.00	31.0275	6.91209
NBHSTA Neighborhood Stability	929	1	4	1.94	.753
RELFTH Quality of Relationship with Father	681	4.00	30.00	24.4802	4.78939
INVFTH Involvement with Father	683	0	9.00	3.6779	2.48725
EDAFTH Educational Aspirations of Father for Child	678	1	5	4.22	1.111
RELMTH Quality of Relationship with Mother	860	5.00	30.00	25.9558	3.86566
INVMTH Involvement with Mother	861	0	9.00	5.0836	2.17276
EDAMTH Educational Aspirations of Mother for Child	849	1	5	4.31	.992
CGHGRC Caregiver's Highest Grade Completed	953	0	20	12.20	2.210
Control Variables					
HHDINC Household Income	945	1	12	6.06	3.296
REGION Data Collection Site	954				



Table 4. Composite Index Variables

Variable Name/Label	Instrument	Component Variables	Categories
<i>Independent Variables</i>			
EMOSUP (Emotional Support)	About My Parents (AMPA0807)	Sum of items 1, 2, 5, 7, 15, 16, & 18  When you were in elementary school, how often did your parent(s) do things with you just for fun? (AMPA1A)  In the last year, how often did your parent(s) do things with you just for fun? (AMPA1B)  When you were in elementary school, how often were your parent(s) interested in your activities or hobbies? (AMPA2A)  In the last year, how often were your parent(s) interested in your activities or hobbies? (AMPA2B)  When you were in elementary school, how often did your parent(s) comfort you if you were upset? (AMPA5A)  In the last year, how often did your parent(s) comfort you if you were upset? (AMPA5B)  When you were in elementary school, how often did your parent(s) help you to do your best? (AMPA7A)  In the last year, how often did your parent(s) help you to do your best? (AMPA7B)  When you were in elementary school, how often did your parent(s) help you when you had problems? (AMPA15A)  In the last year, how often did your parent(s) help you when you had problems? (AMPA15B)  When you were in elementary school, how often did your parent(s) praise you? (AMPA16A)  In the last year, how often did your parent(s) praise you? (AMPA16B)  When you were in elementary school, how often did your parent(s) tell you they loved you? (AMPA18A)  In the last year, how often did your parent(s) tell you they loved you? (AMPA18B)	0=Never 1=Almost never 2=Some-times 3=A lot

Table 4 (Continued)

Variable Name/Label	Instrument	Component Variables	Categories
EDUSUP	About My Parents	Sum of items 3, 8, 13, 14	0=Never 1=Almost never 2=Some-times 3=A lot
(Educational Support)	(AMPA0807)	When you were in elementary school, how often did your parent(s) help you with your homework? (AMPA3A)  In the last year, how often did your parent(s) help you with your homework? (AMPA3B)  When you were in elementary school, how often did your parent(s) make sure you always went to school? (AMPA8A)  In the last year, how often did your parent(s) make sure you always went to school? (AMPA8B)  When you were in elementary school, how often did your parent(s) help you when you had trouble understanding something? (AMPA13A)  In the last year, how often did your parent(s) help you when you had trouble understanding something? (AMPA13B)  When you were in elementary school, how often did your parent(s) read books to you? (AMPA14A)  In the last year, how often did your parent(s) read books to you? (AMPA14B)	
NBHCLE (Neighborhood Collective Efficacy)	Neighborhood and Organizational Affiliation (NOAA0807)	Sum of items 5, 6, 8, 11, 14, 17, 18, 20, 23, 29, 30  My neighbors could be counted on to intervene in various ways if children were skipping school. (NOAA5)  In this neighborhood, adults set good examples for children. (NOAA6)  People around here are willing to help their neighbors. (NOAA8)  Neighbors could be counted on to intervene in various ways if children were spray-painting graffiti on a local building. (NOAA11)  This is a close knit neighborhood. (NOAA14)  Neighbors could intervene in various ways if children were showing disrespect to an adult. (NOAA17)  In this neighborhood, adults act in responsible ways. (NOAA18)	1=Strongly disagree 2=Disagree 3=Agree 4=Strongly agree

Table 4 (Continued)

Variable Name/Label	Instrument	Component Variables	Categories
		People in this neighborhood can be trusted. (NOAA20)	
		Neighbors could be counted on to intervene in various ways if a fight broke out in front of their house. (NOAA23)	
		Neighbors could be counted on to intervene in various ways if the fire station closest to their home was threatened with budget cuts. (NOAA29)	
		In this neighborhood, men are good fathers to their children. (NOAA30)	
RELFTH (Relationship with Father)	Father-Child Relationship (FCCA0807)	Sum of items 3, 4, 6, 7, 8, 9	1=Never or not at all
		How close do you feel to him (father)? (FCCA3)	2=Very little or seldom
		How much do you think he cares about you? (FCCA4)	3=Somewhat or sometimes
		How often does he trust you? (FCCA6)	4=Quite a bit/often
		How often does he understand you? (FCCA7)	5=Very much or always
		How often do you and he get along well? (FCCA8)	
		How often do you and he make decisions together about things in your life? (FCCA9)	
INVFTH (Father's Involvement)	Father-Child Relationship (FCCA0807)	Sum of items 11, 12, 13, 14, 15, 16, 18, 19, 20	0 = No
		In the past four weeks have you gone shopping with him? (FCCA11)	1 = Yes
		In the past four weeks have you played a sport with him? (FCCA12)	
		In the past four weeks have you gone to a religious service or church-related event with him? (FCCA13)	
		In the past four weeks have you talked with him about your friends or things you were doing with your friends? (FCCA14)	
		In the past four weeks have you gone to a movie, play, museum, concert, or sports event with him? (FCCA15)	
		In the past four weeks have you had a talk with him about a personal problem you were having? (FCCA16)	
		In the past four weeks have you talked about your schoolwork or grades with him? (FCCA18)	

Table 4 (Continued)

Variable Name/Label	Instrument	Component Variables	Categories
RELMTH (Relationship with Mother)	Mother-Child Relationship (FCCA0807)	In the past four weeks have you worked on a project for school with him? (FCCA19)	
		In the past four weeks have you talked with him about other things you're doing in school? (FCCA20)	
		Sum of items 3, 4, 6, 7, 8, 9	1=Never or not at all 2=Very little or seldom 3=Somewhat or sometimes 4=Quite a bit or often 5=Very much or always
		How close do you feel to her (mother)? (MCCA3)	
		How much do you think she cares about you? (MCCA4)	
		How often does she trust you? (MCCA6)	
		How often does she understand you? (MCCA7)	
		How often do you and she get along well? (MCCA8)	
		How often do you and she make decisions together about things in your life? (MCCA9)	
		Sum of items 11, 12, 13, 14, 15, 16, 18, 19, 20	0 = No 1 = Yes
INVMTH (Mother's Involvement)	Mother-Child Relationship (FCCA0807)	In the past four weeks have you gone shopping with her? (MCCA11)	
		In the past four weeks have you played a sport with her? (MCCA12)	
		In the past four weeks have you gone to a religious service or church-related event with her? (MCCA13)	
		In the past four weeks have you talked with her about your friends or things you were doing with your friends? (MCCA14)	
		In the past four weeks have you gone to a movie, play, museum, concert, or sports event with her? (MCCA15)	
		In the past four weeks have you had a talk with her about a personal problem you were having? (MCCA16)	
		In the past four weeks have you talked about your schoolwork or grades with her? (MCCA18)	
		In the past four weeks have you worked on a project for school with her? (MCCA19)	
		In the past four weeks have you talked with her about other things you're doing in school? (MCCA20)	

Table 5. Cronbach's Alpha on Index Variables

Index Variable	N of items	Cronbach's Alpha
Index of Emotional Support (EMOSUP)	14	0.902
Index of Educational Support (EDUSUP)	8	0.818
Index of Neighborhood Collective Efficacy (NBHCLE)	11	0.917
Index of Quality of Relationship with Father (RELFTH)	6	0.830
Index of Involvement with Father (INVFTTH)	9	0.755
Index of Relationship with Mother (RELMTH)	6	0.807
Index of Involvement with Mother (INVMTH)	9	0.682

Table 6. Pearson's Correlation Matrix for Social Capital Predictors Used in the Analysis

	EMOSUP	EDUSUP	EDUEXP	NBHCLE	NBHSTA	NBHTME	CHDMVE	RELFTH
EMOSUP	1.000	0.784**	0.027	-0.007	-0.001	0.075*	-0.058	0.022
EDUSUP		1.000	0.036	-0.021	-0.014	0.023	-0.021	0.008
EDUEXP			1.000	0.030	-0.037	-0.052	-0.030	-0.015
NBHCLE				1.000	-0.387**	0.110**	-0.083*	0.008
NBHSTA					1.000	-0.001	0.035	0.043
NBHTME						1.000	-0.308**	-0.014
CHDMVE							1.000	-0.089
RELFTH								1.000
INVFTH								
EDAFTH								
RELMTH								
INVMTH								
EDAMTH								
CGHGRC								
HHDINC								

\* $p \leq 0.05$       \*\* $p \leq 0.01$

Table continued on next page.

Table 6 (continued)

	INVFTH	EDAFTH	RELMTH	INVMTH	EDAMTH	CGHGRC	HHDINC
EMOSUP	-0.048	0.043	0.082*	0.011	0.064	0.001	-0.001
EDUSUP	-0.028	-0.004	0.087*	0.009	0.075*	0.019	0.012
EDUEXP	-0.042	0.027	0.013	0.030	0.104**	0.066*	0.006
NBHCLE	-0.004	0.051	-0.025	0.004	0.080*	0.022	0.039
NBHSTA	-0.006	0.006	-0.022	-0.005	-0.007	-0.035	-0.048
NBHTME	-0.035	0.015	-0.017	-0.024	0.005	0.040	0.049
CHDMVE	0.002	-0.047	-0.032	0.037	-0.044	0.108**	0.083*
RELFTH	0.494**	0.274**	-0.010	-0.003	0.010	-0.085	-0.001
INVFTH	1.000	0.124**	0.012	-0.020	0.007	-0.083	0.025
EDAFTH		1.000	0.037	0.058	0.029	-0.064	0.030
RELMTH			1.000	0.421**	0.072*	-0.013	-0.055
INVMTH				1.000	0.044	0.000	-0.056
EDAMTH					1.000	-0.012	0.007
CGHGRC						1.000	0.329**
HHDINC							1.000

\* $p \leq 0.05$ \*\* $p \leq 0.01$

Table 7. Estimates of OLS Regression Model Predicting Reading Ability Scores

Predictor	B	Std. Error	$\beta$
Constant	102.717***	11.319	
EMOSUP	-0.092	0.160	-0.047
EDUSUP	0.117	0.283	0.034
EDUEXP	-0.054	0.701	-0.004
NBHCLE	0.053	0.120	0.023
NBHSTA	0.702	1.083	0.034
NBHTME	-1.259	0.993	-0.066
CHDMVE	0.088	0.455	-0.010
RELFTH	0.540**	0.204	0.162
INVFTH	-0.273	0.367	-0.043
EDAFTH	-1.807**	0.731	-0.128
RELMTH	0.174	0.228	0.042
INVMTH	-0.114	0.413	-0.015
EDAMTH	-0.813	0.790	-0.052
CGHGRC	-0.733	0.386	-0.096
Northwest: Seattle (SEATTLENW)	-3.115	2.330	-0.082
Southwest: San Diego (SANDIEGOSW)			
South: North Carolina (NORTHCAROLINASO)	-9.477***	2.477	-0.240
Midwest: Chicago (CHICAGOMW)	-5.883*	2.763	-0.132
Northeast: Baltimore (BALTIMORENE)	-12.490***	2.478	-0.326
R <sup>2</sup> (adjusted)	0.065		
F	2.514***		
N	395		

\*p ≤ 0.05

\*\*p ≤ 0.01

\*\*\*p ≤ 0.001

Note: Scope of data collection, age 12 adolescents at-risk for maltreatment



Table 8. Estimates of OLS Regression Model Predicting Reading Scores

Predictor	B	Std. Error	$\beta$
Constant	105.379***	11.311	
EMOSUP	-0.074	0.160	-0.039
EDUSUP	0.128	0.282	0.038
EDUEXP	-0.216	0.712	-0.016
NBHCLE	0.076	0.120	0.034
NBHSTA	0.810	1.083	0.040
NBHTME	-1.150	0.996	-0.061
CHDMVE	-0.039	0.458	-0.005
RELFTH	0.480**	0.204	0.146
INVFTH	-0.143	0.370	-0.023
EDAFTH	-1.636**	0.731	-0.119
RELMTH	0.068	0.231	0.017
INVMTH	-0.067	0.414	-0.009
EDAMTH	-0.713	0.791	-0.047
CGHGRC	-0.825*	0.412	-0.109
HHDINC	-0.005	0.281	-0.001
Northwest: Seattle (SEATTLENW)	-3.308	2.326	-0.089
Southwest: San Diego (SANDIEGOSW)			
South: North Carolina (NORTHCAROLINASO)	-9.862***	2.501	-0.255
Midwest: Chicago (CHICAGOMW)	-5.325	2.792	-0.121
Northeast: Baltimore (BALTIMORENE)	-11.779***	2.500	-0.306
R <sup>2</sup> (adjusted)	0.056		
F	2.194**		
N	386		

\*p ≤ 0.05      \*\*p ≤ 0.01      \*\*\*p ≤ 0.001

Note: Scope of data collection, age 12 adolescents at-risk for maltreatment, controlling for HHDINC (household income)

Table 9a. Estimates of OLS Regression Model Predicting Reading Ability Scores

Predictor	Baltimore B	$\beta$	Chicago B	$\beta$	North Carolina B	$\beta$
Constant	78.254* (34.205)		162.973*** (43.193)		97.059*** (27.176)	
EMOSUP	0.212 (0.622)	0.060	-0.585 (0.624)	-0.314	-0.524 (0.352)	-0.292
EDUSUP	0.191 (0.867)	0.035	0.331 (0.989)	0.112	1.164 (0.728)	0.328
EDUEXP	-0.789 (1.990)	-0.053	-5.294* (2.585)	-0.326	1.374 (1.639)	0.101
NBHCLE	-0.454 (0.391)	-0.194	1.076** (0.405)	0.433	0.108 (0.298)	0.045
NBHSTA	-0.413 (3.642)	0.019	-6.693 (4.286)	-0.241	5.623* (2.345)	0.291
NBHTME	-4.396 (2.779)	-0.199	-0.135 (2.954)	-0.007	-4.951* (2.150)	-0.265
CHDMVE	1.333 (2.795)	0.067	-5.289* (2.311)	-0.454	-1.401 (0.801)	-0.210
RELFTH	1.982** (0.646)	0.432	-0.081 (0.761)	-0.017	0.824 (0.438)	0.259
INVFTH	-2.275** (0.928)	-0.339	-0.288 (1.012)	-0.047	0.494 (0.791)	0.081
EDAFTH	0.076 (2.088)	0.005	-5.944* (2.772)	-0.333	-1.919 (1.369)	-0.159
RELMTH	0.686 (0.799)	0.120	0.773 (0.707)	0.188	-1.206* (0.550)	-0.280
INVMTH	-0.424 (1.168)	-0.048	-0.644 (1.283)	-0.083	0.875 (1.006)	0.115
EDAMTH	-3.377 (2.219)	-0.182	-4.806 (3.680)	-0.196	-1.737 (1.849)	-0.107
CGHGRC	-2.875* (1.342)	-0.260	0.056 (1.154)	0.007	-0.661 (0.864)	0.090
HHDINC	1.703* (0.862)	0.245	0.660 (0.848)	0.122	0.314 (0.673)	0.056
R <sup>2</sup> (adjusted)	0.086		0.050		0.175	
F	1.491		1.194		2.092*	
N	78		55		77	

\* $p \leq 0.05$     \*\* $p \leq 0.01$     \*\*\* $p \leq 0.001$     (Standard Errors in Parentheses)

Note: Scope of data collection, age 12 adolescents at-risk for maltreatment, by region (Baltimore to North Carolina), controlling for HHDINC (household income)

Table 9b. Estimates of OLS Regression Model Predicting Reading Scores

Predictor	San Diego B	$\beta$	Seattle B	$\beta$
Constant	109.209*** (18.207)		79.836** (25.318)	
EMOSUP	0.121 (0.269)	0.090	0.222 (0.302)	0.123
EDUSUP	-0.065 (0.496)	-0.026	0.065 (0.516)	0.021
EDUEXP	-1.189 (1.508)	-0.098	2.875* (1.470)	0.299
NBHCLE	0.195 (0.204)	0.114	-0.306 (0.242)	-0.155
NBHSTA	-1.247 (2.153)	-0.072	-1.275 (1.904)	-0.082
NBHTME	1.069 (1.970)	0.068	0.306 (2.068)	0.019
CHDMVE	0.310 (0.801)	0.050	0.926 (0.953)	0.124
RELFTH	0.067 (0.370)	0.027	0.090 (0.409)	0.033
INVFTH	-0.099 (0.763)	-0.018	0.016 (0.830)	0.003
EDAFTH	-0.786 (1.424)	-0.070	-1.396 (1.816)	-0.101
RELMTH	-0.098 (0.434)	-0.031	0.321 (0.420)	0.094
INVMTH	0.156 (0.895)	0.025	-0.784 (0.787)	-0.131
EDAMTH	1.319 (1.287)	0.120	1.316 (1.481)	0.104
CGHGRC	-0.991 (0.792)	-0.189	-0.181 (0.908)	-0.024
HHDINC	-0.218 (0.576)	-0.055	-0.552 (0.528)	-0.134
R <sup>2</sup> (adjusted)	-0.085		-0.026	
F	0.549		0.855	
N	86		85	

\*p ≤ 0.05      \*\*p ≤ 0.01      \*\*\*p ≤ 0.001      (Standard Errors in Parentheses)

Note: Scope of data collection, age 12 adolescents at-risk for maltreatment, by region (San Diego to Seattle), controlling for HHDINC (household income)

Table 10. Mean Reading Scores by Region

Region	N of sample	Mean Reading Score
Northwest: Seattle (SEATTLENW)	173	95.6127
Southwest: San Diego (SANDIEGOSW)	209	96.4115
South: North Carolina (NORTHCAROLINASO)	164	91.4024
Midwest: Chicago (CHICAGOMW)	127	90.9843
Northeast: Baltimore (BALTIMORENE)	182	88.3901
Total	855	92.7754